Calhoun: The NPS Institutional Archive

DSpace Repository

Theses and Dissertations | 1. Thesis and Dissertation Collection, all items

1963

Theoretical performance of the heated jet pump

Belter, Robert H.

Monterey, California: U.S. Naval Postgraduate School

http://hdl.handle.net/10945/13271

This publication is a work of the U.S. Government as defined in Title 17, United States Code, Section 101. Copyright protection is not available for this work in the United States.

Downloaded from NPS Archive: Calhoun

http://www.nps.edu/library

Calhoun is the Naval Postgraduate School's public access digital repository for research materials and institutional publications created by the NPS community. Calhoun is named for Professor of Mathematics Guy K. Calhoun, NPS's first appointed -- and published -- scholarly author.

Dudley Knox Library / Naval Postgraduate School
411 Dyer Road / 1 University Circle
Monterey, California USA 93943

NPS ARCHIVE
1963
BELTER, R.

THEORETICAL PERFORMANCE OF THE HEATED JET PUMP

ROBERT H. BELTER

LIBRARY
U.S. NAVAL POSTGRADUATE SCHOOL
MONTEREY, CALIFORNIA

THEORETICAL PERFORMANCE OF THE HEATED JET PUMP

* * * * *

Robert H. Belter

THEORETICAL PERFORMANCE OF THE HEATED JET PUMP

by

Robert H. Belter
Lieutenant Commander
United States Navy

Submitted in partial fulfillment of
the requirements for the degree of

MASTER OF SCIENCE
IN
AERONAUTICAL ENGINEERING

United States Naval Postgraduate School
Monterey, California

1 9 6 3

DUDLEY KNOX LIBRARY
NAVAL POSTGRADUATE SCHOOL
MONTEREY CA 93943-5101

DS ARCHIVE
63
ELTER, R.

LIBRARY
U.S. NAVAL POSTGRADUATE SCHOOL
MONTEREY, CALIFORNIA

THEORETICAL PERFORMANCE OF THE HEATED JET PUMP

by

Robert H. Belter

This work is accepted as fulfilling
the thesis requirements for the degree of
MASTER OF SCIENCE
IN
AERONAUTICAL ENGINEERING
from the
United States Naval Postgraduate School

ABSTRACT

The jet pump is a device in which a high energy stream of fluid is used to impel a lower energy stream to a higher total pressure. The high energy stream may be heated to reduce the mechanical power requirements. A jet pump involves no moving parts and is a simple, reliable, light weight device to power a circulation control system on an aircraft.

This study was undertaken to determine the optimum performance of the heated jet pump for blowing boundary layer applications. In order to assess the effect of heating the impelling jet stream, it was necessary to develop expressions which define significant parameters. These are presented as dimensionless coefficients which express momentum per unit area, jet air compressor power vs momentum, and jet air heat energy vs momentum. These coefficients are advanced as useful in the study of heated jet pump performance.

Constant pressure and constant area ideal mixing processes are analyzed, assuming air to be a perfect compressible non viscous fluid. A parametric study is made by digital computer. The effectiveness of heating the impelling jet air is established and the results present families of heated jet pumps with their optimum performance limits.

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

TABLE OF SYMBOLS

Station

0 Source air for the jet nozzle

1. Ambient air

2. Induced ambient air, entering mixing zone

3. Source air entering mixing zone at the jet nozzle

4. Induced ambient air and jet nozzle air at completion of mixing, "jet pump air"

5. Jet pump discharge, jet pump air following isentropic diffusion to ambient static pressure

6. Sonic jet pump discharge, following isentropic nozzle process to sonic velocity

These station numbers will be used as subscripts.

Symbols

T = Temperature

P = Pressure

ρ = Density, Rho

V = Velocity

a* = Sonic velocity

M* = Velocity ratio

A = Area

h = Enthalpy

s = Entropy

hoc = Ambient air following isentropic compression to source pressure, will then be heated or cooled to condition zero

γ = Ratio of specific heat, C_p/C_v

T When used as subscript: total condition

J = Joule's equivalent

For computer program and printed results

PT5P1	=	Jet pump discharge to ambient total pressure ratio
PnPm	=	Pressure ratio, station (n) to (m)
TnTm	=	Temperature ratio, station (n) to (m)
AnAm	=	Area ratio, station (n) to (m)
SACH n	=	Velocity ratio (M*) at station (n)
TT5T1	=	Discharge to ambient total temperature ratio
WMWJ	=	Mass flow ratio, induced air to jet air
G	=	γ, ratio of specific heats
R	=	Rho, density

1. Introduction.

The jet pump is a simple and reliable device for pumping fluids. Operation depends on viscous shear between a fluid which is being pumped and the faster moving pumping fluid. The simplicity, light weight and reliability of a jet pump make it a most attractive device to use in conjunction with a circulation control system on an airplane. The earliest reported use for this purpose was by Arado /1/ in 1941. Subsequent work has been done by Wagner /1, 2/ and Helmbold /3/.

Many engineering devices are compared with some idealized device in order to evaluate their performance. This study was undertaken to determine the optimum performance of the heated jet pump for blowing circulation control on an aircraft. It was not immediately apparent which of the many parameters involved were significant to a systematic study of the performance. However, the physical cross section area of an installation was considered important. The momentum developed is basic for use as a boundary layer control pump, so the momentum per unit area was accordingly considered one of the significant parameters. The solution was arranged so that this can be specified. Other parameters were chosen so that systematic measurable variations could be made. These were the pressure and temperature ratios of the air for the jet, and the velocity of the induced air as it commenced the mixing process. With these parameters specified, the solution of

a constant pressure mixing process is explicit by satisfying the laws of continuity, momentum and energy. The various area ratios, mass flow ratios, etc., are hence available and of interest, but do not actually define the performance of the jet pump. It was necessary to develop relationships which consider the amount of mechanical power and the amount of heat provided to the jet air, and then relate these to a significant parameter; the discharge momentum of the jet pump. These expressions for compressor power and heat energy compared with momentum permit direct comparison between different jet pumps as the input parameters are varied. The constant area case did not yield an explicit solution. It is solved by iteration and arranged so that comparison with the constant pressure process is possible. Typical constant pressure and constant area heated jet pump configurations, with their related enthalpy/entropy diagrams, are shown in Figures 1 and 2.

The writer wishes to express his appreciation for the assistance, guidance and encouragement given him by Professor Theodore H. Gawain, of the United States Naval Postgraduate School, Monterey, California.

2. Definition of performance coefficients.

a. The Momentum Area Coefficient.

A jet pump for use in a circulation control system must be able to produce a required momentum. This involves the product of the mass of air handled per unit time and the velocity at which it is delivered. Ideally, one would like to keep the installation as compact as possible, so it was found necessary to develop expressions which describe momentum per unit area. Accordingly, the Momentum Area Coefficient, CMA, is defined. Basically, this is the ratio of the momentum of the jet pump discharge at station five compared with a suitable reference area.

$$\text{CMA} = \frac{\text{Mass flow rate x velocity at discharge}}{\text{Reference area } \underline{\text{x}} \text{ dimensional constants}}$$

The reference area selected is station six (A6), which is the hypothetical area necessary to pass the discharge from the jet pump at sonic velocity. In order to express the above in coefficient form, dimensional constants are arbitrarily chosen as those of ambient air at sonic velocity, hence, are invariant with respect to the problem. In its simplest form CMA is

$$CMA = \frac{\rho_5 A_5 V_5^2}{\rho_1^* A_6 a_1^{*2}}$$

It will be shown that this coefficient is a function of the total pressure ratio through the pump, and is not affected by any heat added to the system. This fact is exceedingly useful since it is possible to specify an entire family of

jet pumps, each providing equal momentum output per unit area despite substantial difference in the details of operation. Figure 3 shows the relationship between PT5P1 and CMA.

b. The Compressor Power Coefficient.

The mechanical power delivered to the impelling jet air is of prime interest to this study. It is necessary to compare this power to some significant parameter of the jet pump in order to assess the effectiveness of any particular configuration. The mechanical power is assumed to be in the form of an isentropic compression of the jet air to the total pressure specified. This is basically the product of the mass handled per unit time, and the increase in enthalpy per unit mass. The reference parameter selected is the discharge momentum of the jet pump. The Compressor Power Coefficient is accordingly defined as

$$CPM = \frac{\text{Ideal compressor power supplied}}{\text{Jet pump discharge momentum}} \times \text{dimensional constants.}$$

In order to place in coefficient form, the dimensional constants include Joule's equivalent and ambient air relationships. Expressed in its simplest form,

$$CPM = \frac{\omega \Delta h_{oc} 2 g J}{\rho_5 A_5 V_5^2 a_1^*}$$

This coefficient is considered extremely useful, inasmuch as it considers all necessary aspects of configuration and operation to present a number which shows mechanical power

supplied vs momentum delivered.

c. The Heat Coefficient.

The amount of heat supplied to (or removed from) the jet air must be defined and related to a significant parameter. This heat added does not consider the energy provided the jet air in the isentropic compression, since this is taken into account in the Compressor Power Coefficient. It is simply the mass of jet air handled per unit time multiplied by the heat added per unit mass.

The case of heat being removed corresponds to that of air being compressed and then placed in storage, where it cools to ambient conditions. The significant comparative parameter is again taken to be the discharge momentum of the jet pump, so the Heat Coefficient, CQM, is

$$CQM = \frac{\text{Heat added to jet air}}{\text{Jet pump discharge momentum}} \times \text{Dimensional constants.}$$

The dimensional constants are as in the previous case, so

$$CQM = \frac{\dot{\omega} q \quad 2 g J}{\rho_s A_s V_s^2 a_1^*}$$

This coefficient is also considered extremely useful and rather similar to the previous expression. It too, considers all aspects of configuration and operation, and simply presents a number showing the heat energy supplied to the jet air vs the momentum discharge of the jet pump.

3. Development.

The coefficients and jet pump solutions were developed using the ordinary relationships for perfect compressible fluids, except that the reference velocity ratio used is the star Mach, M_2^*, which is akin to, but somewhat different from Mach number. The many details of development are presented as Appendix I.

The parameters were selected to permit a systematic process of variation. With prime interest in developing families of jet pumps producing the same momentum per unit area, CMA was a logical first choice as a parameter. The comparisons desired within these families are compressor power and heat energy trade-offs, indicated by CPM and CQM. The jet total pressure and temperature ratios are directly involved in these coefficients, so were made parameters. The final parameter required to permit solution was the induced flow velocity ratio, M_2^*.

The usual isentropic relationships were employed to solve for conditions up to the point where the jet and induced air commenced mixing. The mass flow ratio and corresponding area ratio were unknown, but were explicit in the constant pressure case. The solution was completed by using the equations of continuity, momentum and energy in the ideal mixing process. Since the total pressure of discharge, PT5P1, was specified, and the pressure at completion of mixing was known, all details of the constant pressure jet pump were available. The constant area jet

pump did not yield an explicit solution, so it was necessary to arrange the solution for iteration. A trial value of jet to mixing area ratio (A2A3) was specified. This fixed the mass flow ratio, and by the solution of the equations of continuity, momentum and energy, the total pressure ratio, PT4P1, was known. This was compared with the total pressure ratio, PT5P1, demanded and the area ratio was adjusted until PT4P1 was equal to PT5P1. This made the static pressure at completion of mixing available and the solution was completed using isentropic relationships.

The constant pressure and constant area solutions were set up for computation by digital computer (Control Data Corporation 1604) utilizing Fortran expressions. The computer programs and results are presented as Appendix II.

4. Discussion.

The computer programs and results for constant pressure and constant area jet pumps are presented in Appendix II. Each line details information on a particular jet pump with change of parameters as follows: Induced flow velocity, M_2*, changes on each line. Jet total pressure ratio, POP1, changes on each block of ten lines. Jet total temperature ratio, TOT1, changes for each page. Momentum Area Coefficient, CMA, changes for each set of five pages. The constant pressure and constant area results are arranged in a similar manner so direct comparison is possible.

It might be noted in the constant area case that higher

values of M_2* are not present under certain conditions. This is a result of choking, which is indicated by the solution becoming imaginary. All possible jet pumps are accepted; with no arbitrary limits on parameters.

The area ratios, mass flow ratios, etc., are all of interest, but they are only responding to the parameters imposed, and do not directly indicate the performance of the jet pump. The most significant result is considered to be the Compressor Power Coefficient, CPM, and the Heat Coefficient, CQM, as listed for each jet pump. These two coefficients take into account the multiplicity of details of operation and configuration, and simply present two numbers, one which indicates the compressor power required, the other, the heat energy required to provide the demanded Momentum Area Coefficient. Minimums of CPM and CQM represent optimal conditions. These coefficients permit a straightforward presentation of the effect of change of parameters. The most interesting result is the manner in which compressor power and heat energy requirements are affected by changes in jet pressure and temperature ratios. These relationships are presented on graphs, Figures 4 through 9, of CPM vs CQM, where variations in POP1 and TOT1 determine a "carpet" of constant temperature and pressure lines. The Momentum Area Coefficient is assumed fixed on each graph. It would be possible to make one of these plots for each value of M_2*, but it is desired to present an envelope of optimum jet pumps, so the lowest value of

CPM and CQM in each block of ten jet pumps is plotted regardless of M_2*. (In order to provide smoother curves, more values of M_2* were used than are listed in Appendix II) In the constant area case, this optimum occurs at the highest possible M_2*. Figure 10, of CPM vs CQM for POP1 and M_2* variation, shows this relationship for a typical page. The heated constant pressure jet pumps achieve their optimums at varying M_2*. This is shown by Figure 11, which is a typical constant pressure heated jet pump graph of CPM vs CQM for POP1 and M_2* parameters. It can be seen that the optimum M_2* is not necessarily the highest M_2*. The complexity of the relationships make it difficult to pose a reason for this interesting result. Whenever "optimum jet pump" is referred to below it will mean the one achieving the lowest CPM and CQM in a block where only M_2* is varied. Figures 4 through 6 are constant pressure, and Figures 7 through 9 are constant area optimum jet pumps.

These figures show the manner in which the compressor power requirements are reduced by heating the jet air. The cold jet (TOT1 = 1.0) can be observed to require the greatest mechanical power. The ordinate, where CPM = 0, is a case in which the air is compressed, but not heated or cooled. The highest temperature shown is for a ratio of TOT1 = 5.0, where the compressor power requirements are substantially reduced. The constant jet pressure ratio lines, POP1, show how the minimum mechanical power is required when the lowest jet pressures and highest

temperatures are used. These are conditions of low mass flow ratio, WMWJ, and high discharge total temperature ratio, TT5T1.

It is generally desired that the jet air compressor and storage system be of minimum size, which requires higher jet pressures. Although this increases mechanical power requirements it results in a substantial increase in mass flow ratio. This reduces TT5T1, hence, any downstream ducting will be cooler. These mass flow vs jet pressure relationships are presented as Figure 12, in which it might be noted that heating the jet air results in a further increase in mass flow ratio. A typical reduction in TT5T1 with increase in POP1 (and WMWJ) is shown in Figure 13. These points are for optimum jet pumps only.

Referring again to Figures 4 through 9, the plots of CPM vs CQM, each complete graph is for a particular CMA. The general trend of the compressor power requirements is upward as higher values of CMA are called for. Individual comparisons between constant pressure and constant area optimum jet pumps, as shown in these graphs, show how the optimum constant pressure jet pump is superior when cold, TOT1 = 1.0, but the optimum constant area jet pump becomes superior when heated. As mentioned above, this optimum constant area jet pump occurs at the highest M_2*, whereas the optimum constant pressure jet pump occurs at different values of M_2*. It is not likely that one would handle induced air at the high M_2* values listed for the optimum

jet pumps due to the high viscous losses on the walls in real flow. If constant pressure and constant area jet pumps are compared for the same M_2*, the constant pressure jet pump is in general superior. The above graphs and techniques could be duplicated for any M_2* desired to yield an excellent means of comparing different arbitrary jet pumps.

Any particular limits on the jet pumps, such as TT5T1, WMWJ, etc., can be easily impressed on the computer program so that only desired jet pumps are listed. The beneficial effect of jet air heating has been well indicated, so one might assume the highest temperature ratio which can be achieved will be used. The selection of the desired jet pump is considerably simplified by fixing these parameters, and when other engineering considerations, such as CMA and POP1, are more closely defined, the admittedly large numbers of jet pumps listed will be reduced substantially, making the optimum jet pump available for selection from this smaller family.

5. Recommendations for further study.

This study of the theoretical performance of heated jet pumps provides families of optimum jet pumps which are useful in judging the performance of real devices. It is unfortunate that viscosity, which makes the jet pump possible, also causes such substantial losses in performance. These viscous effects are not the subject of this study, but are certainly of interest. The losses are those associated with jet nozzle and wall friction on the one hand, and the jet air/induced air mixing processes on the other. Expressions could be developed which reflect these effects as a decrease in the total pressure available at the completion of mixing. These relationships would not be simple, but when arrived at, the iterative techniques used for the constant area solution are directly adaptable to their inclusion. This would permit direct comparison of CPM and CQM with other real jet pumps, and with optimum jet pumps. It would provide useful information for design and experimental work.

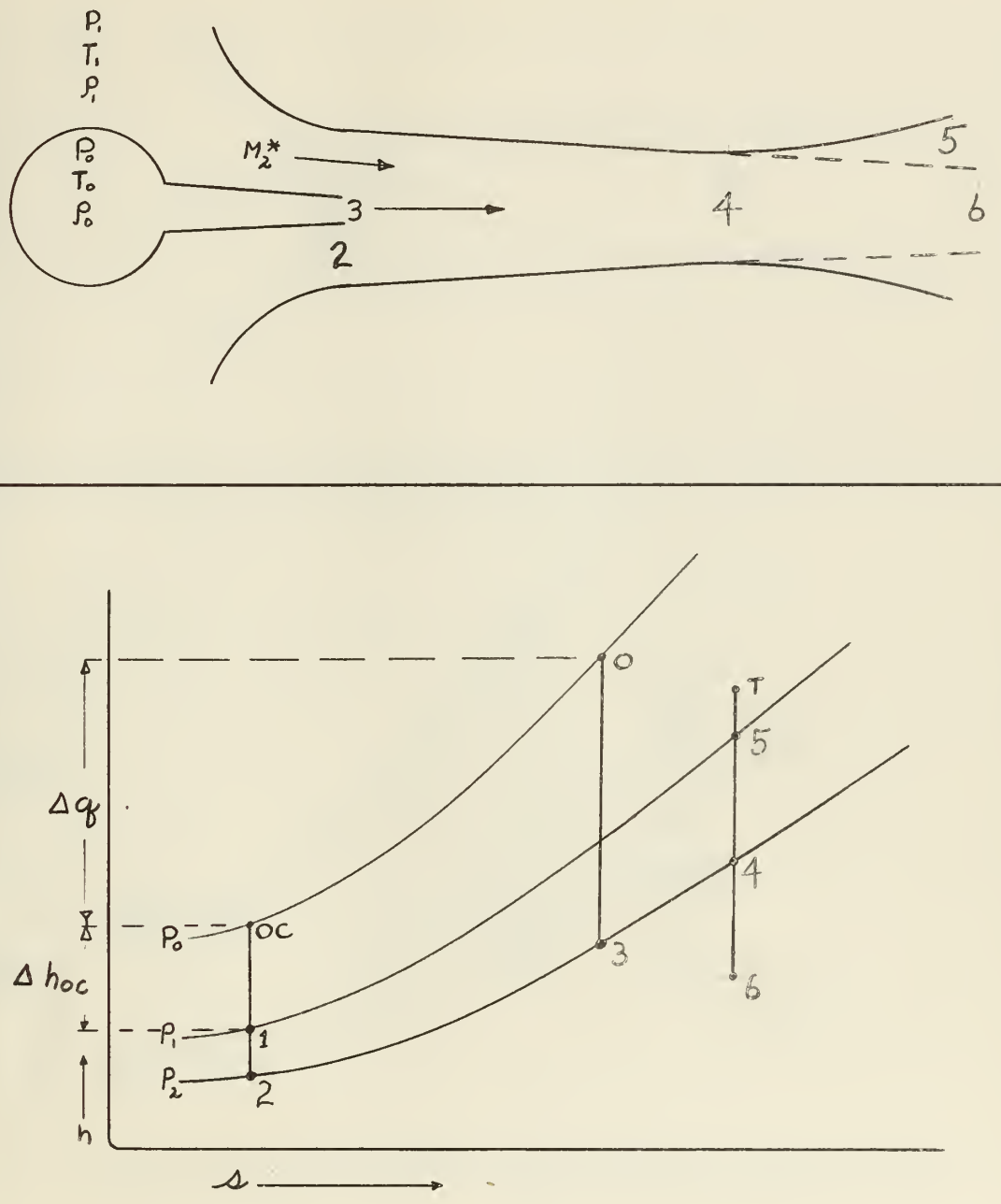
6. Conclusions.

a. The simplicity, reliability and light weight of the jet pump make it an attractive device with which to power a circulation control system on an aircraft. Despite the many details of configuration and operation, it is possible to express the essential characteristics of the heated jet pump in terms of three dimensionless coefficients. These define jet pump discharge momentum per unit area, CMA, the jet air compressor power vs momentum, CPM, and jet air heat energy vs momentum, CQM.

b. The momentum per unit area, CMA, is a function only of the discharge total pressure ratio, PT5P1, or alternately, the discharge velocity ratio, M_5*. It is entirely independent of heating. The compressor power requirements increase with increasing CMA.

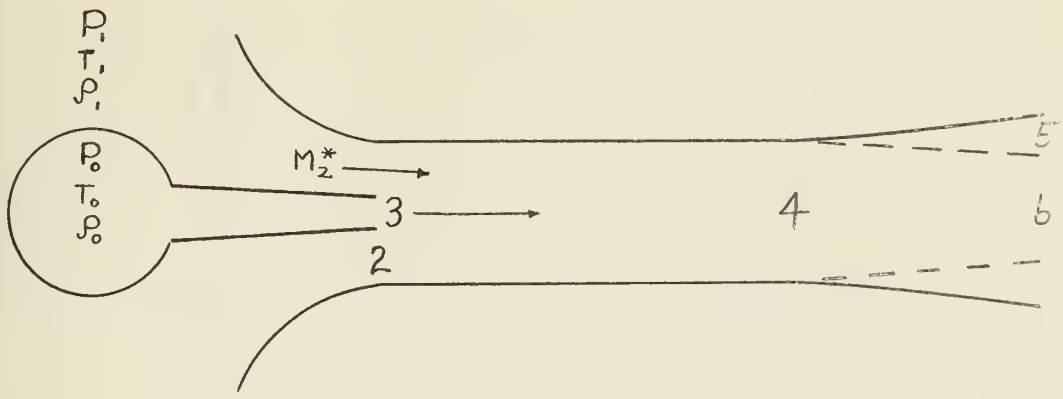
c. There exists a well defined combination of optimum parameters which will produce any required discharge momentum pe- unit area with minimum power demand for any specified jet temperature ratio. This power demand is lowest at low pressure and high temperature.

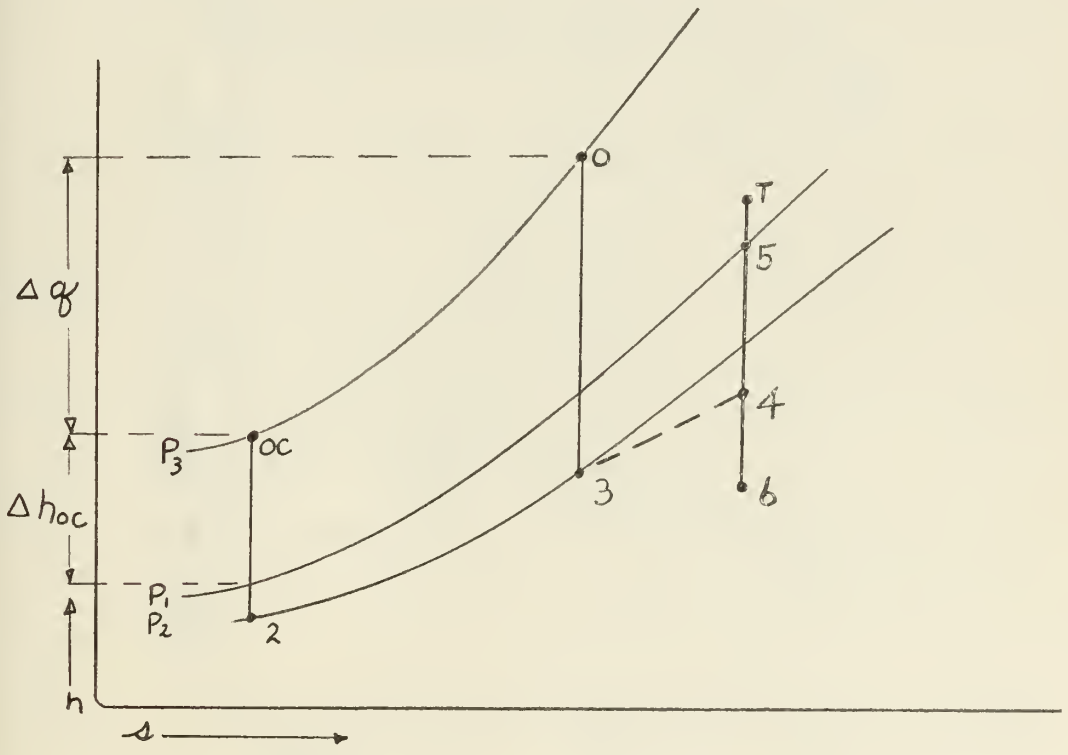
d. In most cases, a given operating requirement can theoretically be met with lower power by employing the constant area rather than the constant pressure configuration. For the constant area case, minimum power occurs at maximum induced velocities, corresponding to choked flow. This may be undesirable when viscous losses are taken into account. For the constant pressure case, choking is not a factor, and minimum power demand usually occurs at less than maximum induced velocity, the optimum velocity decreasing as temperatures are increased.



Typical Constant Pressure Mixing Jet Pump Enthalpy/Entropy Diagram

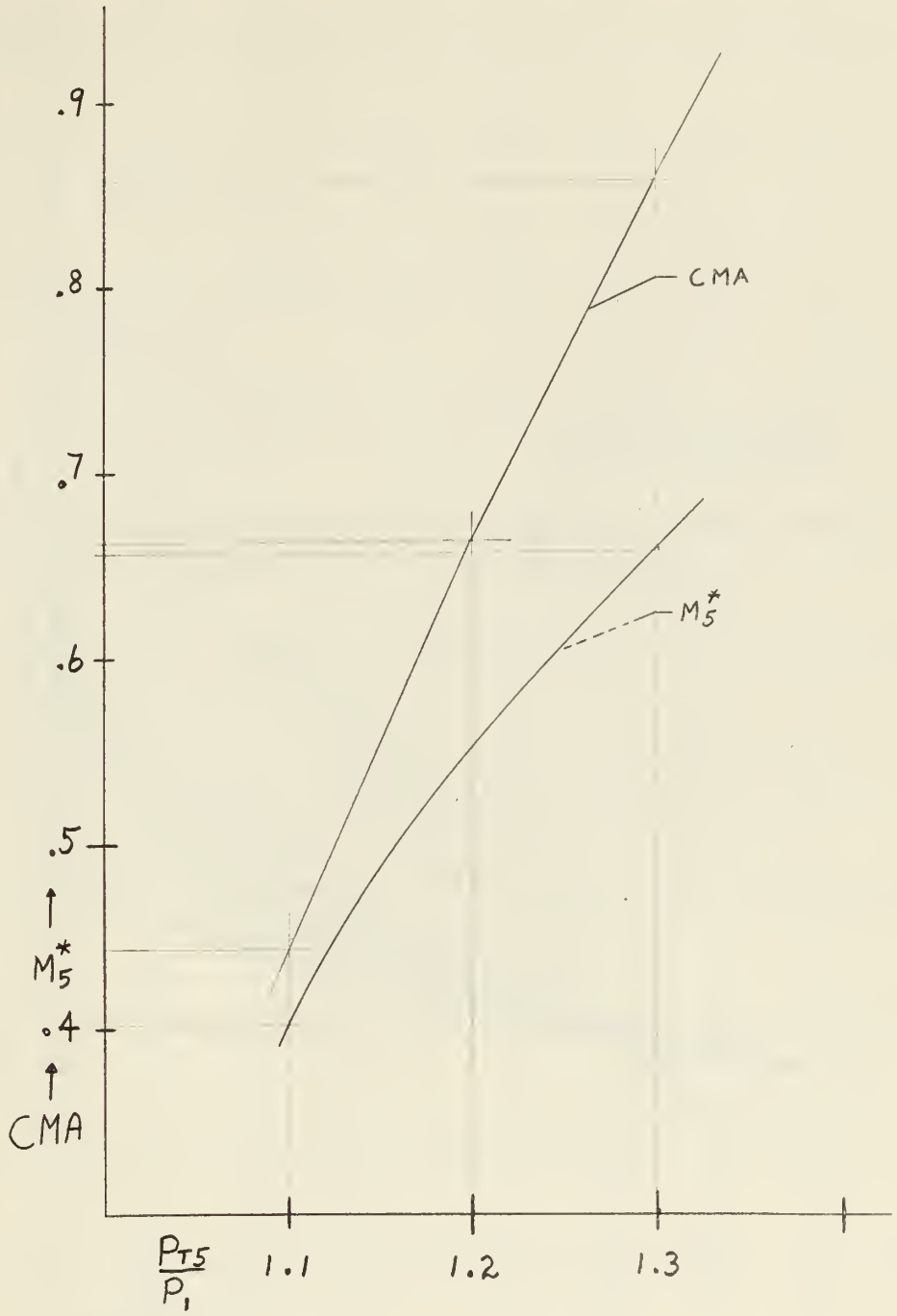
Figure 1.





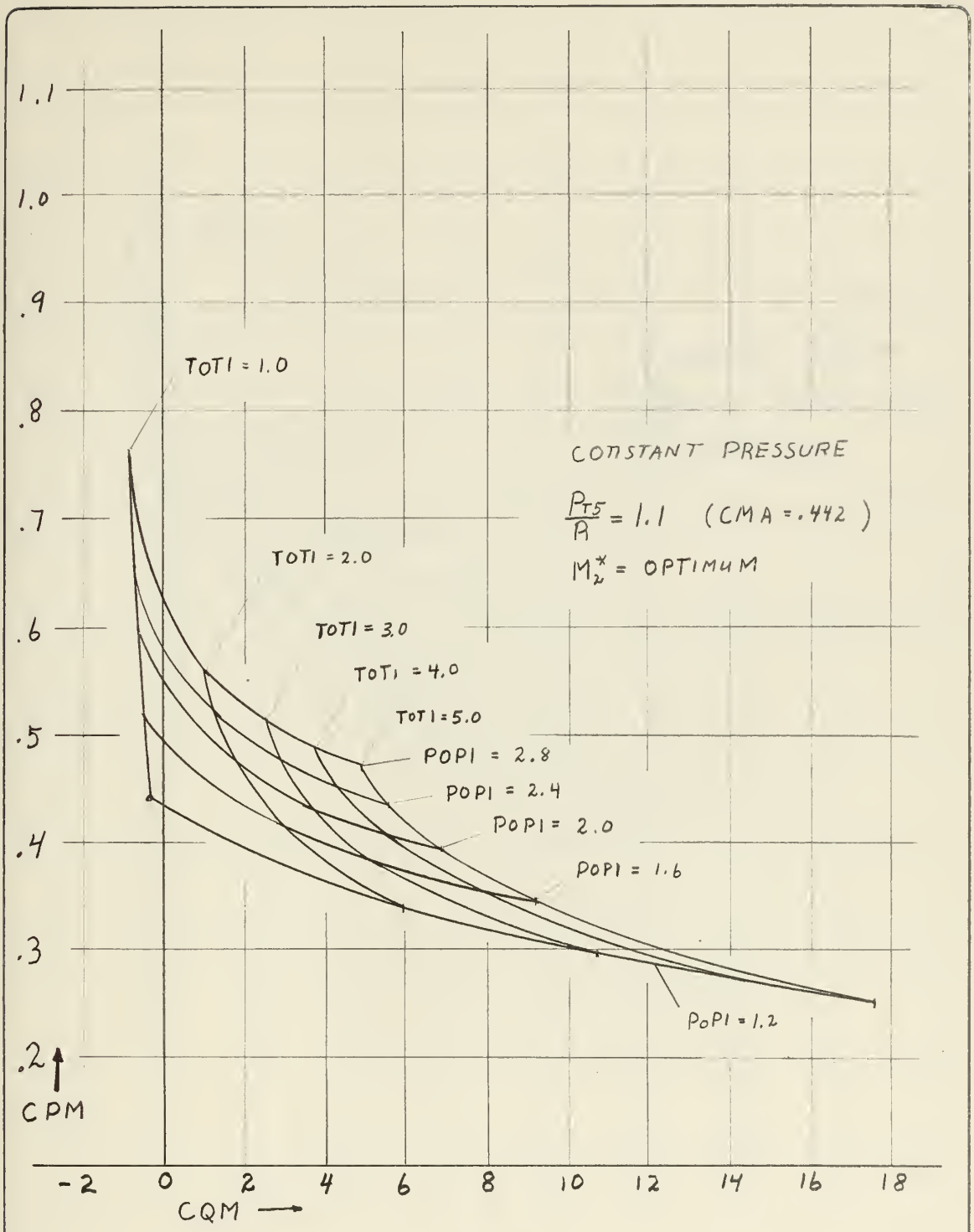
Typical constant area mixing jet pump enthalpy/entropy diagram.

Figure 2



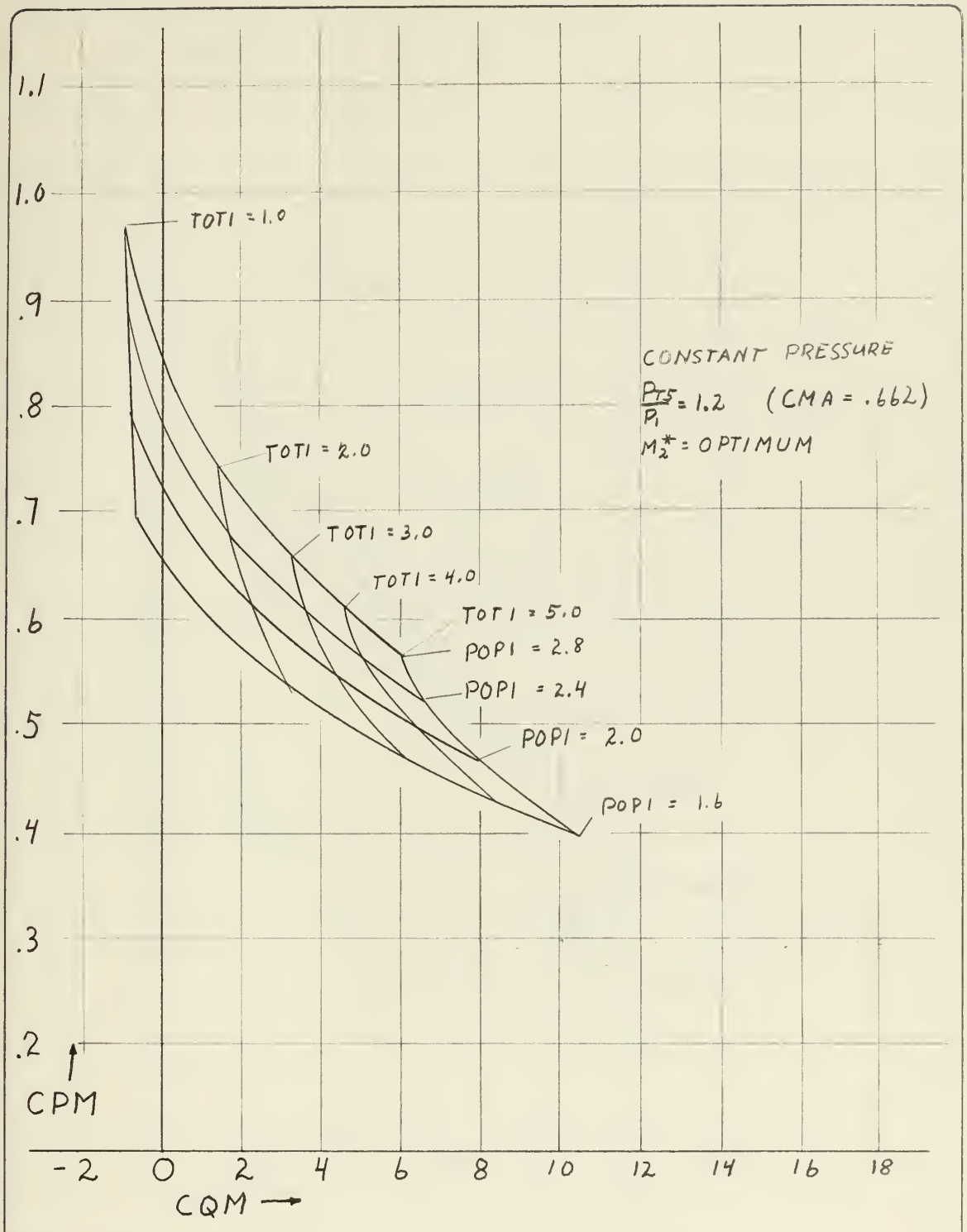
Discharge total pressure ratio, Pt5P1, vs. Momentum Area Coefficient, CMA, and vs discharge velocity ratio M_5^*.

Figure 3.



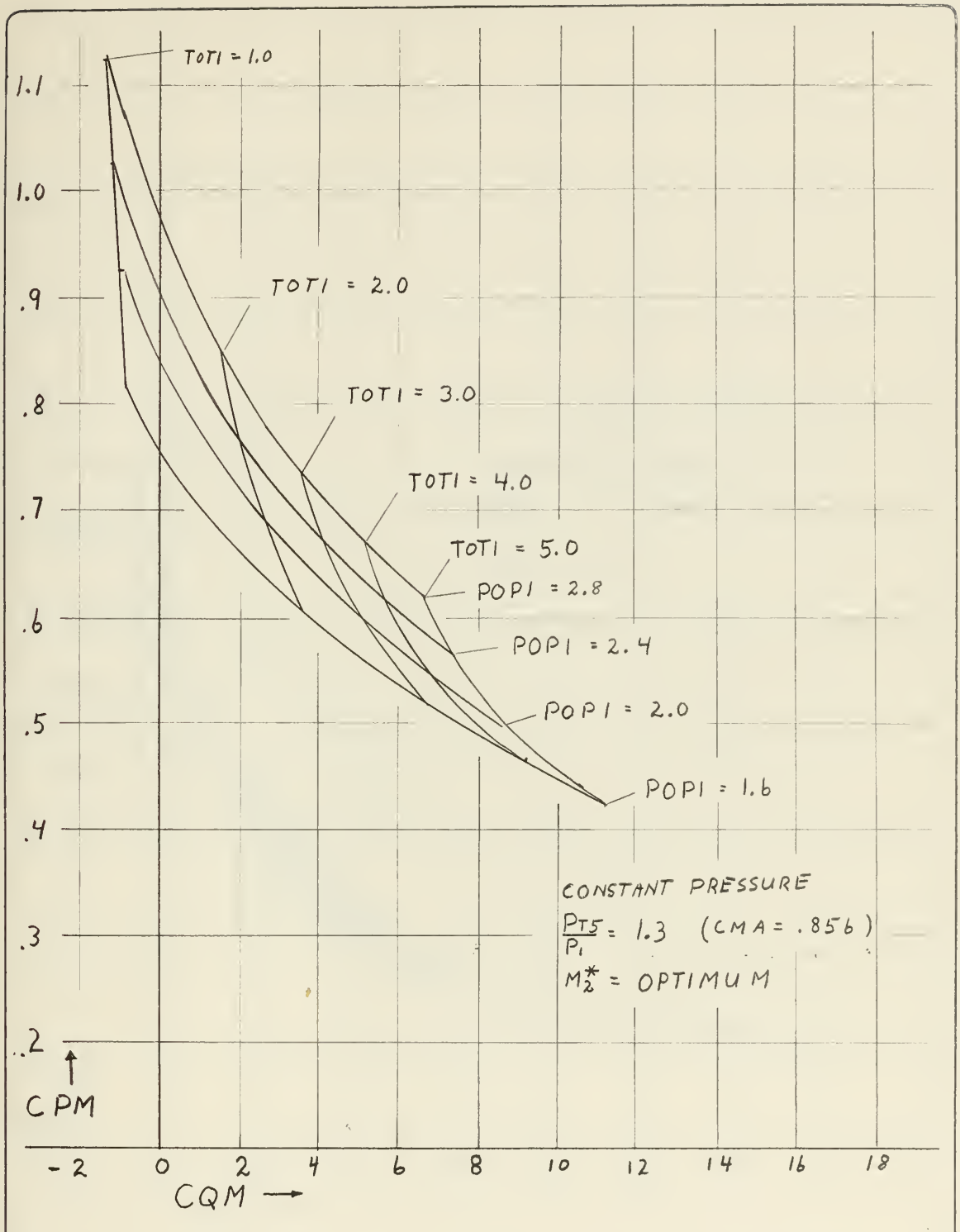
Constant pressure jet pump optimum performance, CPM vs CQM, for TOT1 and POP1 variation, PT5P1 = 1.1, M_2* = optimum

Figure 4.



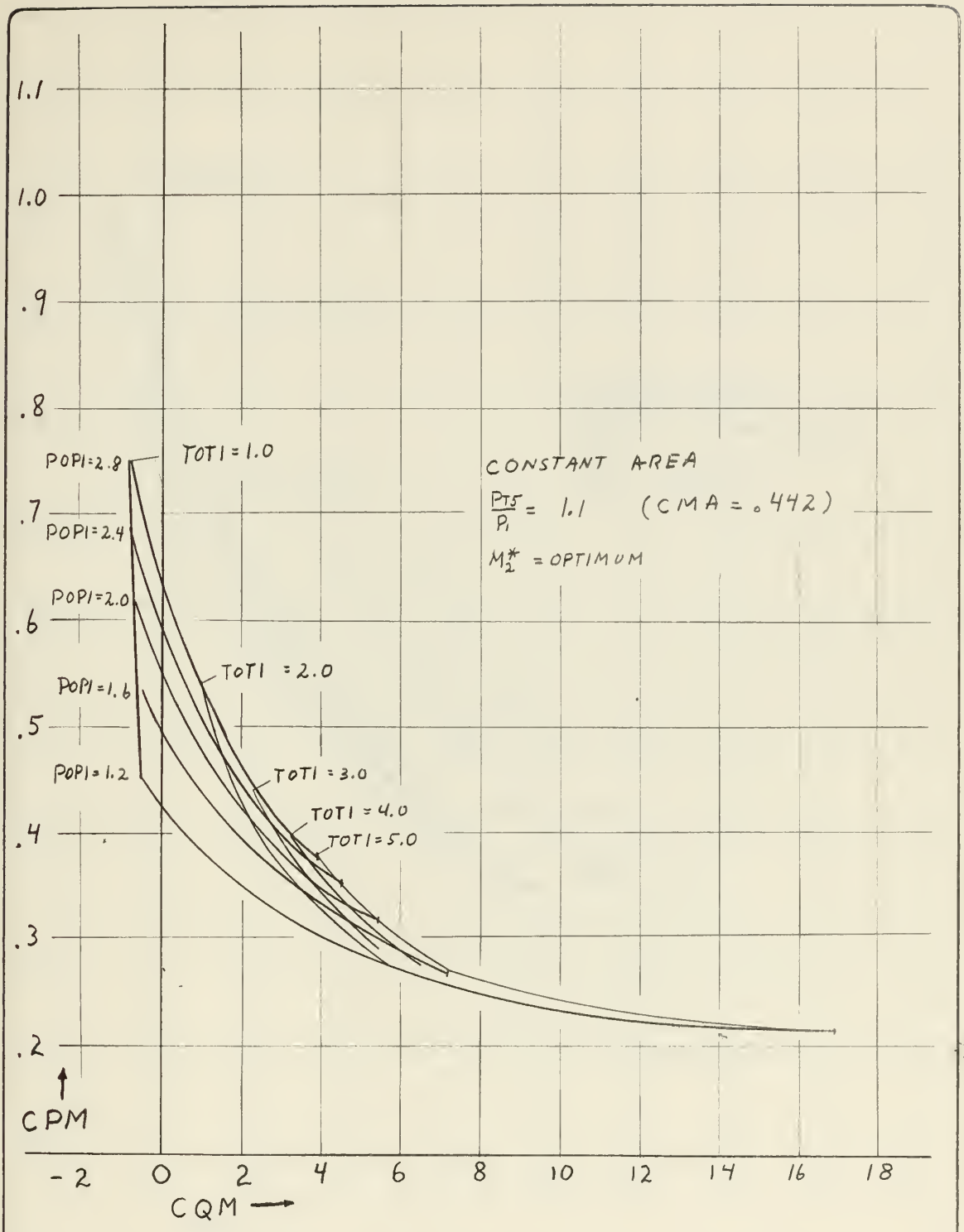
Constant pressure jet pump optimum performance,
CPM vs CQM, for TOT1 and POP1 variation,
PT5P1 = 1.2, M_2* = optimum

Figure 5.



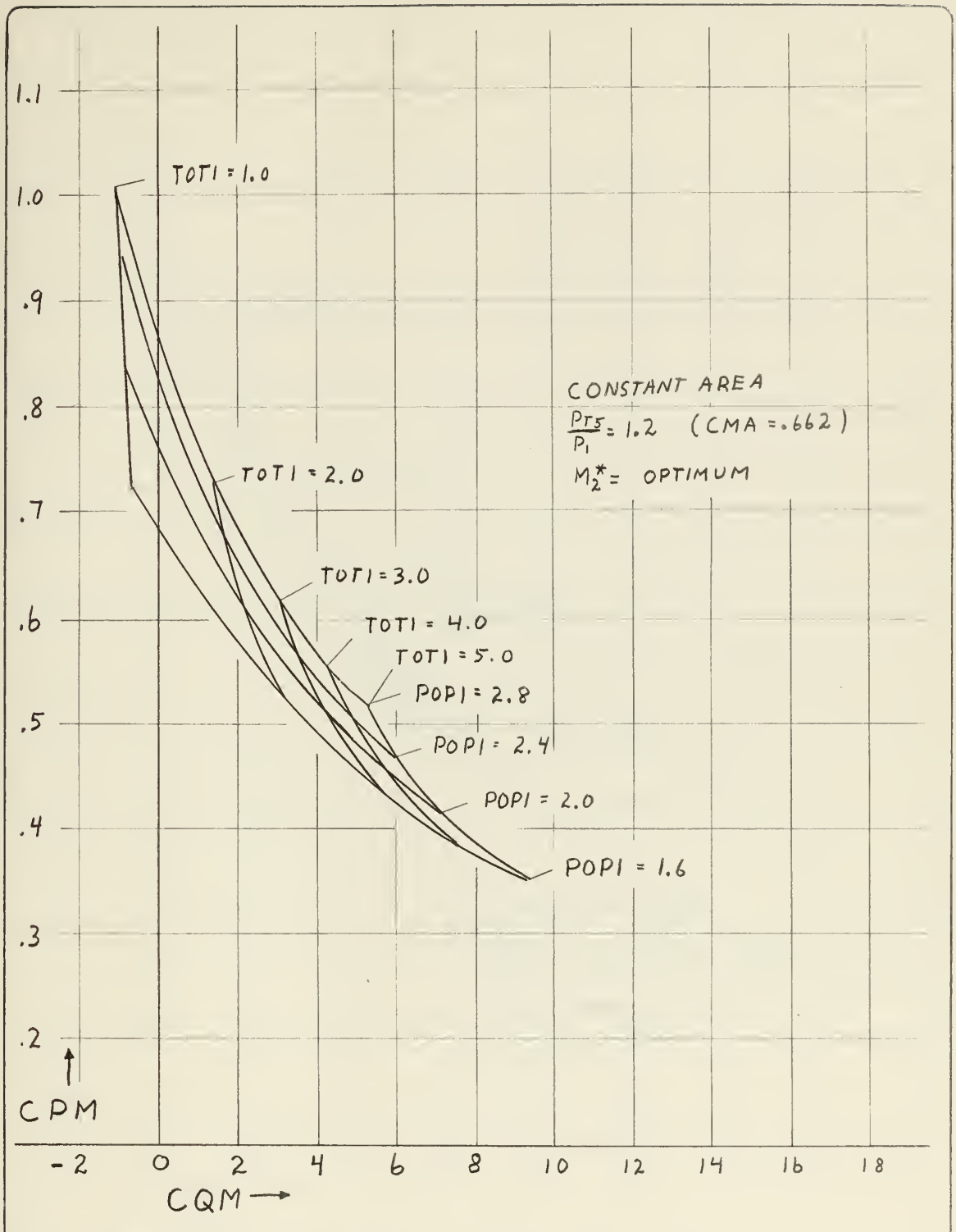
Constant pressure jet pump optimum performance, CPM vs CQM, for TOT1 and POP1 variation, PT5P1 = 1.3, M_2* = optimum

Figure 6.



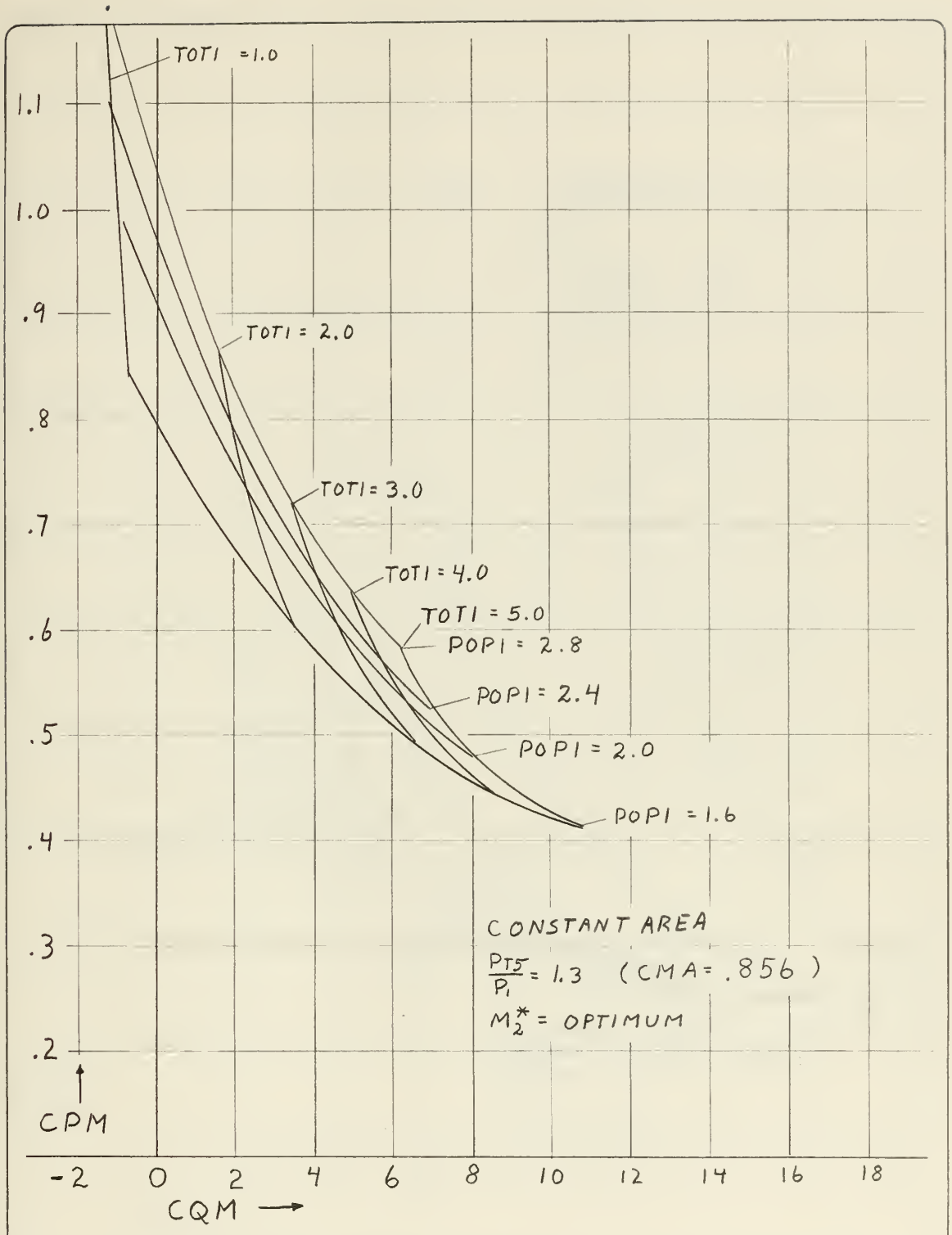
Constant area jet pump optimum performance,
CPM vs CQM, for TOT1 and POP1 variation,
PT5P1 = 1.1, M_2* = optimum

Figure 7.



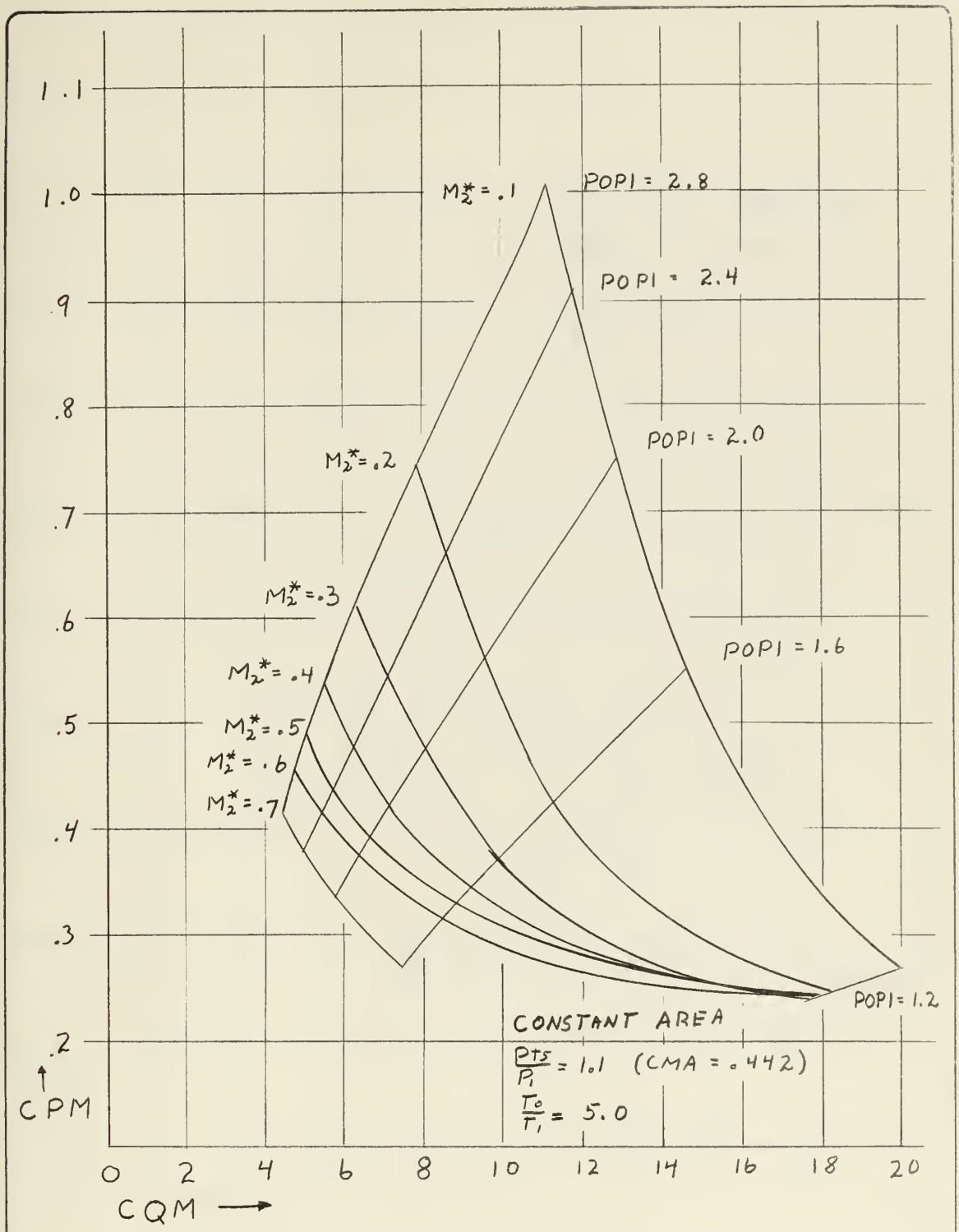
Constant area jet pump optimum performance,
CPM vs CQM, for TOT1 and POP1 variation,
PT5P1 = 1.2, M_2* = optimum

Figure 8.



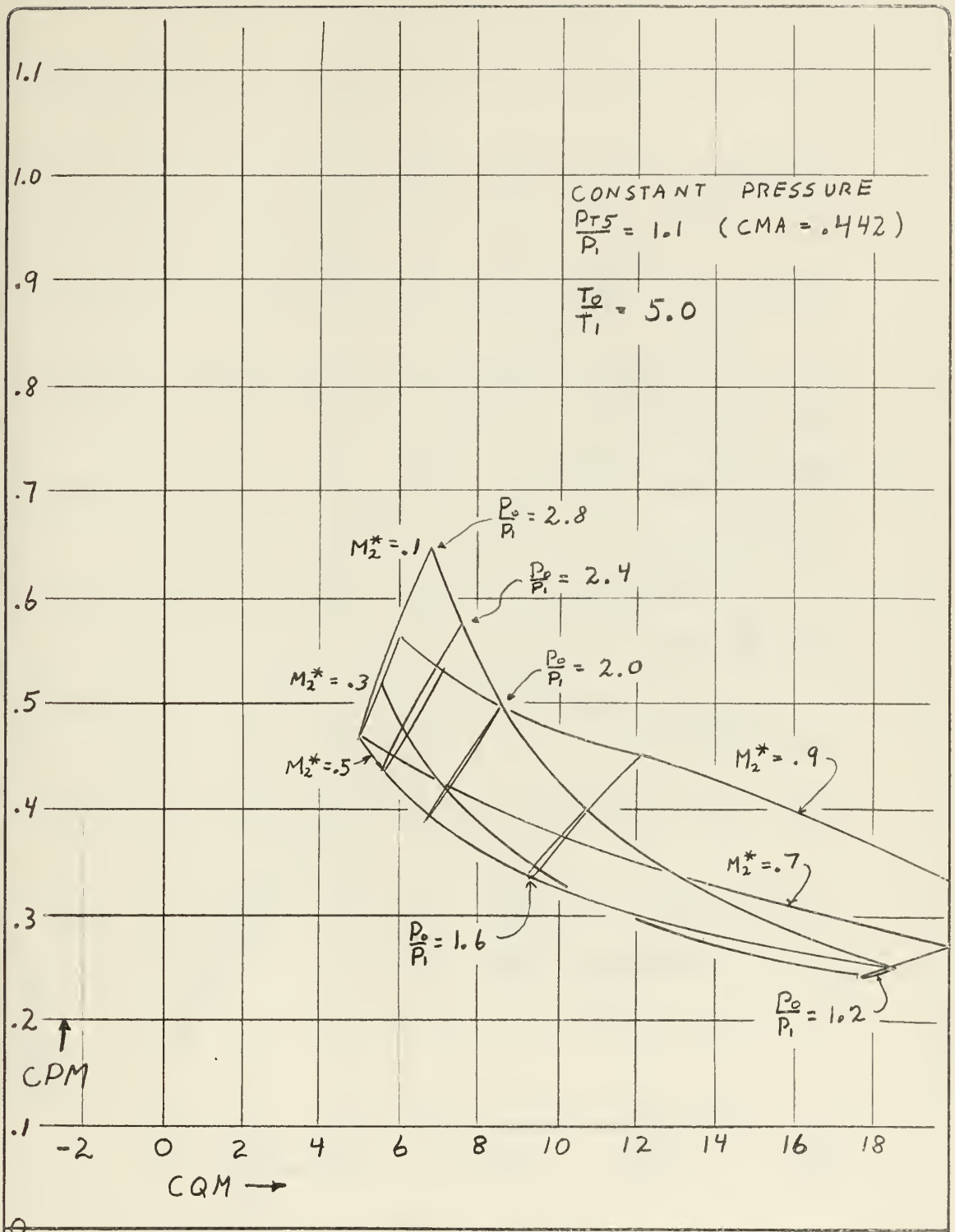
Constant area jet pump optimum performance, CPM vs CQM, for TOT1 and POP1 variation, PT5P1 = 1.3, M_2* = optimum

Figure 9.



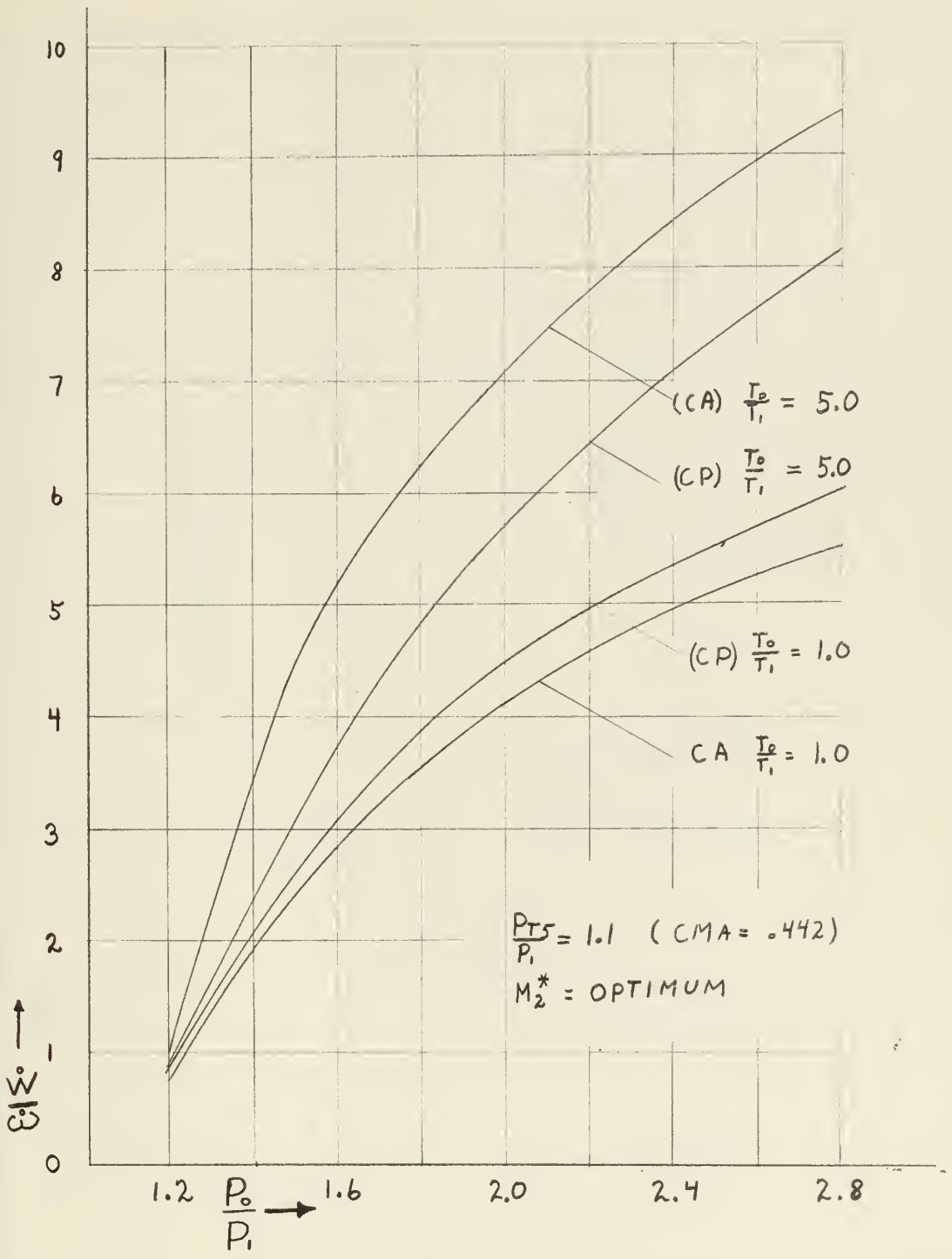
Typical constant area heated jet pump performance, CPM vs CQM, for M_2* and POP1 variation, PT5P1 = 1.1, TOT1 = 5.0

Figure 10.



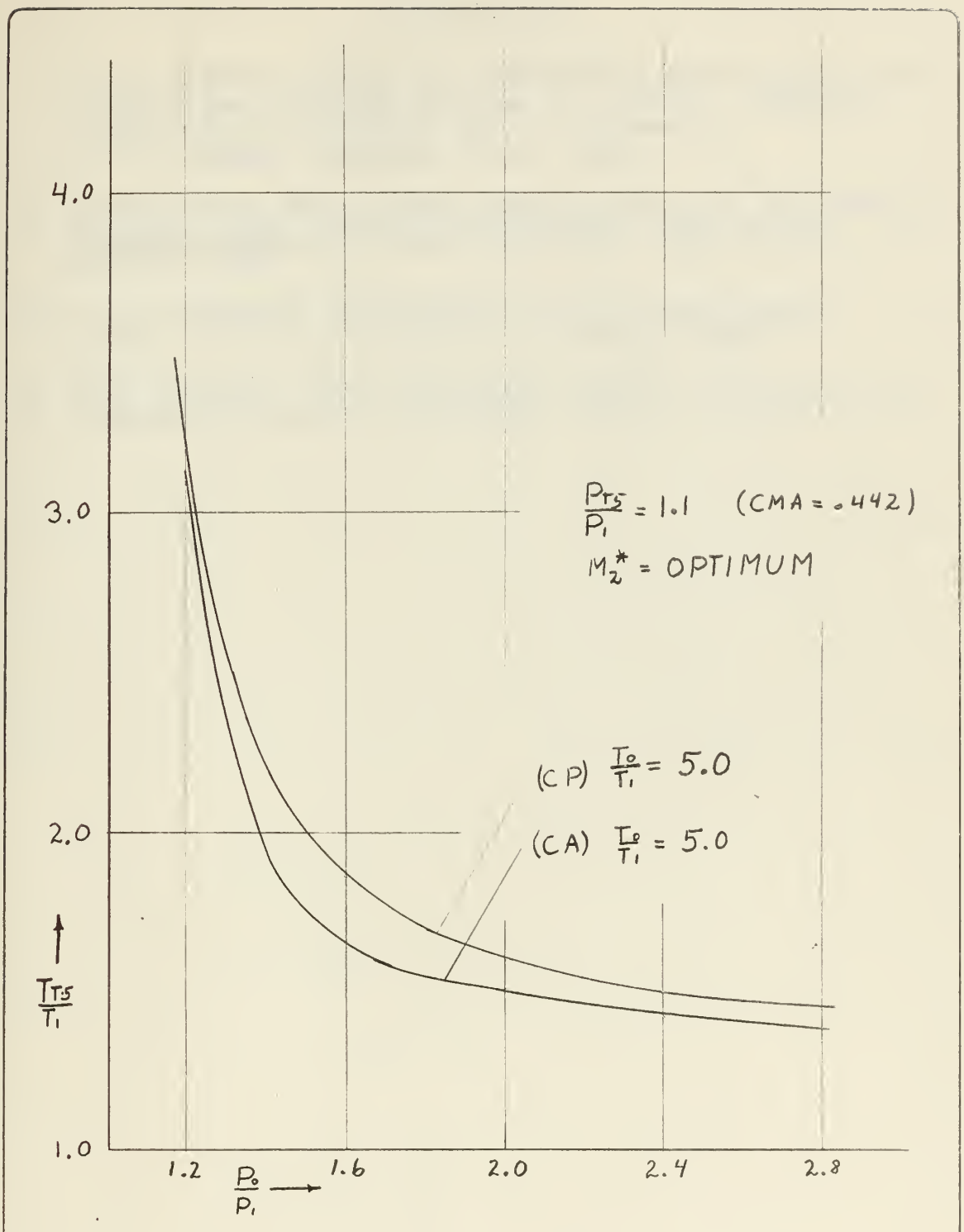
Typical constant pressure heated jet pump performance, CPM vs CQM for M_2* and POP1 variation, PT5P1 = 1.1, TOT1 = 5.0

Figure 11.



Mass flow ratio $\left(\frac{\dot{W}}{\dot{\omega}}, \text{WMWJ}\right)$ vs Jet total pressure ratio $\left(\frac{P_0}{P_1}, \text{POP1}\right)$ constant pressure (CP) and constant area (CA), PT5P1 = 1.1

Figure 12.



Discharge total temperature ratio $\left(\frac{T_{T5}}{T_1}, TT5T_1\right)$ vs jet total pressure ratio $\left(\frac{P_0}{P_1}, POP_1\right)$ constant pressure (CP) and constant area (CA).

Figure 13.

BIBLIOGRAPHY

1. F. G. Wagner, Design and Engineering Features for Flap Suction and Combined Blowing and Suction, BOUNDARY LAYER AND FLOW CONTROL, Vol. I, edited by G. V. Lachman, Pergamon Press, 1961.

2. Ryan Designs BLC-7 Light Twin Airliner, By the Editors, Aviation Week and Space Technology, Pages 87-92, May 21, 1962.

3. H. B. Helmbold, Contribution to Jet Pump Theory, Report No. 294, University of Wichita, 1957.

4. Ames Research Staff, Equations, Tables and Charts for Compressible Flow, NASA Report 1135.

APPENDIX I

DETAILED DEVELOPMENT

1. Preliminary relationships.

The preliminary relationships are those useful in the analysis of high speed flow of a perfect compressible fluid, as detailed in NASA Report 1135 /4/. All velocities are expressed in terms of M*, which is akin to, but not the same as Mach number, M. The difference lies in the use of a reference velocity, a*, based on total temperature. They relate so that at Mach One, a = a*, and M = M*. At other velocity ratios, $a \neq a^*$, and $M \neq M^*$, even though the product, aM = a*M*, is the same in all cases. One useful aspect is that when air is expanded to zero temperature, M* remains finite. All usual isentropic relations can be expressed in terms of the velocity ratio, M*. These are summarized below.

$$a = \sqrt{\gamma g R T}$$

$$a^* = \sqrt{\frac{2\gamma}{\gamma+1} g R T_T}$$

$$\frac{T}{T_T} = 1 - \frac{\gamma-1}{\gamma+1} M^{*2}$$

$$\frac{p}{p_T} = \left(\frac{T}{T_T}\right)^{\frac{\gamma}{\gamma-1}}$$

$$\frac{\rho}{\rho_T} = \left(\frac{T}{T_T}\right)^{\frac{1}{\gamma-1}}$$

$$\dot{W} = \rho_2 A_2 V_2$$

$$\omega = \rho_3 A_3 V_3$$

$$\rho = \frac{P}{\gamma R T}$$

$$C_P = \frac{R\gamma}{\gamma - 1}$$

$$\gamma = \frac{C_P}{C_v}$$

2. Performance coefficients.

a. Momentum Area Coefficient

The ratio of the discharge momentum with respect to a reference momentum was previously defined as

$$CMA = \frac{\rho_5 A_5 V_5^2}{\rho_1^* A_6 a_1^{*2}}$$

$$= \frac{\rho_5 A_5 a_5^{*2} M_5^{*2}}{\rho_1^* A_6 a_1^{*2}}$$

NOW

$$\rho_5 a_5^{*2} M_5^{*2} = \frac{\rho_5}{\rho_5^*} \rho_5^* a_5^{*2} M_5^{*2}$$

WHERE

$$\frac{\rho_5}{\rho_5^*} = \left(\frac{T_5}{T_5^*}\right)^{\frac{1}{\gamma-1}}$$

$$= \left[\frac{1 - \frac{\gamma-1}{\gamma+1} M_5^{*2}}{\frac{2}{\gamma+1}}\right]^{\frac{1}{\gamma-1}}$$

$$\rho_5^* \, a_5^{*2} = \frac{P_5^*}{gRT_5^*} \, \gamma g R T_5^*$$

$$= \gamma \left(\frac{P_5^*}{P_{T_5}} \right) P_{T_5}$$

$$= \gamma P_{T_5} \left[\frac{2}{\gamma+1} \right]^{\frac{\gamma}{\gamma-1}}$$

SO THAT

$$\rho_5 \, a_5^{*2} \, M_5^{*2} = \left[\frac{1 - \frac{\gamma-1}{\gamma+1} M_5^{*2}}{\frac{2}{\gamma+1}} \right]^{\frac{1}{\gamma-1}} \gamma \left[\frac{2}{\gamma+1} \right]^{\frac{\gamma}{\gamma-1}} P_{T_5} \, M_5^{*2}$$

IN A SIMILAR MANNER

$$\rho_1^* \, a_1^{*2} = \gamma \left[\frac{2}{\gamma+1} \right]^{\frac{\gamma}{\gamma-1}} P_1$$

HENCE

$$\frac{\rho_5 \, a_5^{*2} \, M_5^{*2}}{\rho_1^* \, a_1^{*2}} = \frac{P_{T_5}}{P_1} \left[\frac{1 - \frac{\gamma-1}{\gamma+1} M_5^{*2}}{\frac{2}{\gamma+1}} \right]^{\frac{1}{\gamma-1}} M_5^{*2}$$

BY CONTINUITY

$$\frac{A_5}{A_6} = \frac{\rho_6}{\rho_5} \, \frac{1}{M_5^*}$$

$$= \left[\frac{\frac{2}{\gamma+1}}{1 - \frac{\gamma-1}{\gamma+1} M_5^{*2}} \right]^{\frac{1}{\gamma-1}} \frac{1}{M_5^*}$$

Substituting in the definition of CMA, the result is

$$CMA = \frac{P_{TS}}{P_1} M_s^*$$

OR

$$= \frac{P_{TS}}{P_1} \sqrt{\frac{\gamma+1}{\gamma-1} \left[1 - \left(\frac{P_1}{P_{TS}} \right)^{\frac{\gamma-1}{\gamma}} \right]}$$

It can be seen that CMA is a function only of the discharge total pressure which is demanded. Heating of the discharge due to the jet source air is not a factor.

b. Compressor Power Coefficient

The ratio of the power supplied for the jet air by an isentropic compressor, to the discharge momentum is defined as

$$CPM = \frac{\omega \Delta hoc}{\rho_s A_s V_s^2} \frac{2 g J}{a_1^*}$$

$$= \frac{\Delta hoc}{\left(\frac{\dot{W}}{\omega} + 1 \right) V_s} \frac{2 g J}{a_1^*}$$

NOW

$$\Delta hoc = C_p (T_{oc} - T_1)$$

$$= C_p T_1 \left[\left(\frac{P_o}{P_1} \right)^{\frac{\gamma-1}{\gamma}} - 1 \right]$$

SO

$$CPM = \frac{C_p T_1 \left[\left(\frac{P_0}{P_1}\right)^{\frac{\gamma-1}{\gamma}} - 1\right] 2gJ}{\left(\frac{\dot{W}}{\omega}+1\right) a_5^* M_5^* a_1^*}$$

ALSO

$$\frac{2gJC_p T_1}{a_5^* a_1^*} = \frac{2gJR\gamma T_1}{\sqrt{\frac{2\gamma}{\gamma+1} gRT_{T_5}} \sqrt{\frac{2\gamma}{\gamma+1} gRT_1} (\gamma-1)}$$

THEREFORE

$$CPM = \frac{\left[\left(\frac{P_0}{P_1}\right)^{\frac{\gamma-1}{\gamma}} - 1\right] \frac{\gamma+1}{\gamma-1} \sqrt{\frac{T_1}{T_{T_5}}}}{\left(\frac{\dot{W}}{\omega}+1\right) M_5^*}$$

c. Heat Coefficient

The ratio of the heat supplied to the jet air compared with the discharge momentum is

$$CQM = \frac{\omega q \quad 2gJ}{\rho_5 A_5 V_5^2 a_1^*}$$

$$= \frac{q \; 2gJ}{\left(\frac{\dot{W}}{\omega}+1\right) V_5 a_1^*}$$

SINCE

$$q = C_p (T_0 - T_{0c})$$

$$= C_p T_1 \left[\frac{T_0}{T_1} - \left(\frac{P_0}{P_1}\right)^{\frac{\gamma-1}{\gamma}}\right]$$

SIMILARLY

$$CQM = \frac{\left[\frac{T_0}{T_1} - \left(\frac{P_0}{P_1}\right)^{\frac{\gamma-1}{\gamma}}\right] \frac{\gamma+1}{\gamma-1} \sqrt{\frac{T_1}{T_{T_5}}}}{\left(\frac{\dot{W}}{\dot{\omega}}+1\right) M_5^*}$$

3. Solution of constant pressure mixing heated jet pumps.

The constant pressure mixing process is treated first and an explicit solution is obtained. Certain paramaters are considered fixed, these are

$\frac{P_{T5}}{P_1}$ — the demanded total pressure ratio through the pump, discharge to ambient.

$\frac{T_0}{T_1}$ — the jet source air to ambient air total temperature ratio.

$\frac{P_0}{P_1}$ — the jet source air to ambient air total pressure ratio.

M_2^* — the induced ambient air velocity ratio upon commencement of mixing.

With these parameters defined, it is possible to commence the solution using the above relationships and the equations of continuity, momentum and energy. Initially,

$$(1.) \qquad \frac{P_2}{P_1} = \left(1 - \frac{\gamma-1}{\gamma+1} M_2^{*2}\right)^{\frac{\gamma}{\gamma-1}}$$

and when the jet nozzle is not choking,

$$(2.) \qquad \frac{P_3}{P_1} = \frac{P_2}{P_1}$$

so that the Mach number of the jet nozzle is defined as

$$(3.)\quad M_3^* = \left\{ \frac{\gamma+1}{\gamma-1} \left[1 - \left(\frac{P_3}{P_1} \frac{P_1}{P_0} \right)^{\frac{\gamma-1}{\gamma}} \right] \right\}^{\frac{1}{2}} \leq 1.0$$

When the pressure ratios are such as to cause choking at the jet nozzle

$$M_3^* \equiv 1.0$$

AND

$$(4.)\quad \frac{P_3}{P_1} = \frac{P_0}{P_1} \left(\frac{2}{\gamma+1} \right)^{\frac{\gamma}{\gamma-1}}$$

$$(5.)\quad \frac{\rho_3}{\rho_2} = \frac{\frac{P_3}{T_3}}{\frac{P_2}{T_2}} = \frac{P_3}{P_1} \frac{P_1}{P_2} \frac{T_2}{T_1} \frac{T_0}{T_3} \frac{T_1}{T_0}$$

$$(6.)\quad = \frac{\frac{P_3}{P_1} \left(\frac{P_2}{P_1} \right)^{-\frac{1}{\gamma}}}{\frac{T_0}{T_1} \left[1 - \left(\frac{\gamma-1}{\gamma+1} \right) M_3^{*2} \right]}$$

IN ALL CASES

$$P_5 = P_1$$

$$P_{T_5} = P_{T_4}$$

When constant pressure mixing is assumed to occur,

$$P_4 = P_2$$

$$(7.)\quad M_4^* = \left\{ \frac{\gamma+1}{\gamma-1} \left[1 - \left(\frac{P_4}{P_{T_4}} \right)^{\frac{\gamma-1}{\gamma}} \right] \right\}^{\frac{1}{2}}$$

The equations of continuity, conservation of momentum and conservation of energy are

$$(8)\quad \dot{W}+\dot{\omega} = \rho_4 a_4^* M_4^* A_4$$

$$(9)\quad \dot{W} a_2^* M_2^* + \dot{\omega} a_3^* M_3^* + (P_3 - P_2)A_3 = \rho_4 a_4^{*2} M_4^{*2} A_4 + (P_4 - P_2)A_4$$

It may be noted that the terms involving P_3 and P_4 are only present in the choked nozzle case and in the mixing zone pressure gradient (constant area) case respectively.

Taking C_p as constant

$$(10)\quad \dot{W}T_1 + \dot{\omega}T_0 = \rho_4 a_4^* M_4^* A_4 T_{T_4}$$

Solution of the equations of continuity and energy yield

$$(11)\quad \frac{T_{T_4}}{T_1} = \frac{\frac{\dot{W}}{\dot{\omega}} + \frac{T_0}{T_1}}{\frac{\dot{W}}{\dot{\omega}} + 1}$$

which is the total temperature ratio on completion of the mixing process, and as such, can show the maximum possible temperature of any downstream ducting. Under constant pressure mixing, the last term in the momentum equation is dropped and the equations of continuity and momentum are employed to yield

$$(12)\quad \frac{T_{T_4}}{T_1} = \left[\frac{\frac{\dot{W}}{\dot{\omega}} M_2^* + \sqrt{\frac{T_0}{T_1}} M_3^* + D}{\left(\frac{\dot{W}}{\dot{\omega}} + 1\right) M_4^*}\right]^2$$

The term indicated by D is associated with the choked jet nozzle and is defined as

$$(13) \qquad D = \frac{(P_3 - P_2) A_3}{\dot{\omega} a_1^*}$$

By using the relationships

$$a_1^{*2} = \frac{2\gamma}{\gamma+1} g R T_1$$

$$\rho_3 = \frac{P_3}{g R T_3}$$

It is possible to redefine D as

$$(14) \qquad D = \frac{1}{M_3^*} \sqrt{\frac{T_0}{T_1}} \left[\frac{\gamma+1}{2\gamma}\right] \left[1 - \frac{P_2}{P_3}\right] \left[1 - \left(\frac{\gamma-1}{\gamma+1}\right) M_3^{*2}\right]$$

The above expressions for total temperature are equated and solved for an expression in mass flow ratio. This is a quadratic in which the positive root is meaningful

$$(15) \qquad \frac{\dot{w}}{\dot{\omega}} = \frac{-b + \sqrt{b^2 - 4ac}}{2a}$$

where

$$(16) \qquad a = M_4^{*2} - M_2^{*2}$$

$$(17) \qquad b = M_4^{*2} \left(\frac{T_0}{T_1} - 1\right) - 2\sqrt{\frac{T_0}{T_1}} M_2^* M_3^* - 2 M_2^* D$$

$$(18) \qquad C = \frac{T_0}{T_1} \left(M_4^{*2} - M_3^{*2}\right) - 2\sqrt{\frac{T_0}{T_1}} M_3^* D - D^2$$

With the mass flow ratio now defined, the discharge air total temperature ratio is immediately available. The ratio of the initial mixing zone area to jet nozzle area is found by continuity, utilizing

$$(19) \qquad \frac{A_2}{A_3} = \frac{\dot{W}}{\omega} \sqrt{\frac{T_o}{T_1}} \; \frac{M_3^*}{M_2^*} \; \frac{\rho_3}{\rho_2}$$

And the ratio of final mixing area to jet nozzle area is

$$(20) \qquad \frac{A_4}{A_3} = \frac{M_2^* \; \frac{A_2}{A_3} + \frac{\rho_3}{\rho_2} \sqrt{\frac{T_o}{T_1}} \; M_3^*}{\frac{\rho_4}{\rho_2} \; \frac{a_4^*}{a_2^*} \; M_4^*}$$

$$(21) \qquad = \frac{\left[M_2^* \; \frac{A_2}{A_3} + \frac{\rho_3}{\rho_2} \sqrt{\frac{T_o}{T_1}} \; M_3^* \right] \left[1 - \left(\frac{\gamma - 1}{\gamma + 1} \right) M_4^{*2} \right]}{\left(\frac{P_2}{P_1} \right)^{\frac{\gamma - 1}{\gamma}} \sqrt{\frac{T_1}{T_{T_4}}} \; M_4^*}$$

Considering the isentropic diffusion of the discharge to ambient pressure

$$(22) \qquad \frac{A_5}{A_4} = \left(\frac{P_2}{P_1} \right)^{\frac{1}{\gamma}} \; \frac{M_4^*}{M_5^*}$$

The discharge can be taken to sonic velocity to yield

$$(23) \qquad \frac{A_6}{A_4} = \frac{\rho_4}{\rho_6} \; M_4^*$$

$$(24) \qquad = \left[\frac{1 - \left(\frac{\gamma - 1}{\gamma + 1} \right) M_4^{*2}}{\frac{2}{\gamma + 1}} \right]^{\frac{1}{\gamma - 1}} M_4^*$$

Which makes available

$$\frac{A_2}{A_6}, \frac{A_3}{A_6}, \frac{A_5}{A_6}, \text{ AND } \quad \frac{A_2 + A_3}{A_6}$$

4. Solution of constant area mixing heated jet pumps.

The constant area mixing process introduces a pressure gradient in the mixing zone which complicates the problem. An explicit solution was not developed. It was felt desirable to ultimately fix the same parameters as in the constant pressure case. The problem was set up with an arbitrary area ratio to jet nozzle, and a solution was obtained. The total pressure ratio obtained, PT5P1, is examined and the area ratio adjusted as a consequence.

$$\frac{A_2}{A_3} = \text{defined.}$$

$$A_4 = A_2 + A_3$$

$$(25) \quad \frac{\rho_2}{\rho_1} = \left(\frac{P_2}{P_1}\right)^{\frac{1}{\gamma}}$$

$$(26) \quad \frac{T_3}{T_0} = \left[1 - \frac{\gamma-1}{\gamma+1} M_3^{*2}\right]$$

$$(27) \quad \frac{\rho_3}{\rho_1} = \frac{\frac{P_3}{P_1}}{\left(\frac{T_0}{T_1} \quad \frac{T_3}{T_0}\right)}$$

THE MASS RATIO IS

$$(28)\qquad \frac{\dot{W}}{\dot{\omega}} = \frac{A_2}{A_3}\,\frac{\rho_2}{\rho_3}\,\frac{a_2^*}{a_3^*}\,\frac{M_2^*}{M_3^*}$$

$$(29)\qquad = \frac{A_2\ \frac{\rho_2}{\rho_1}\ 1\ M_2^*}{\frac{\rho_3}{\rho_2}\ \sqrt{\frac{T_0}{T_1}}\ M_3^*}$$

Which makes the discharge total temperature ratio available through the equation of continuity and energy, so

$$(30)\qquad \frac{T_{T4}}{T_1} = \frac{\frac{\dot{W}}{\dot{\omega}} + \frac{T_0}{T_1}}{\frac{\dot{W}}{\dot{\omega}} + 1}$$

The equation of continuity may be employed to show

$$(31)\qquad M_4^*\ \frac{\rho_4}{\rho_1} = \frac{\frac{\rho_2}{\rho_1}\ \frac{A_2}{A_3}\ M_2^* + \frac{\rho_3}{\rho_1}\sqrt{\frac{T_0}{T_1}}\ M_3^*}{\left(\frac{A_2}{A_3}+1\right)\ \sqrt{\frac{T_{T4}}{T_1}}}$$

Now, Since

$$(32)\qquad \frac{\rho_4}{\rho_1} = \frac{P_4}{P_1}\ \frac{T_1}{T_{T4}}\ \frac{T_{T4}}{T_4}$$

$$(33)\qquad = \frac{P_4}{P_1}\ \frac{1}{\frac{T_{T4}}{T_1}}\ \frac{1}{\left[1 - \frac{\gamma-1}{\gamma+1} M_4^{*2}\right]}$$

THEN

$$(34)\qquad M_4^*\ \frac{P_4}{P_1} = \alpha - \alpha\left(\frac{\gamma-1}{\gamma+1}\right) M_4^{*2}$$

WHERE

$$(35) \qquad \alpha = \frac{\left(\frac{\rho_2}{\rho_1}\,\frac{A_2}{A_3}\,M_2^* + \frac{\rho_3}{\rho_1}\sqrt{\frac{T_0}{T_1}}\,M_3^*\right)\sqrt{\frac{T_{T4}}{T_1}}}{\left(\frac{A_2}{A_3}+1\right)}$$

$\frac{P_4}{P_1}$ will be developed below and then substituted in this continuity expression (34). Now, the full equation of momentum (9) and the equation of continuity (8) is employed as in the constant pressure case so that

$$(36) \qquad \sqrt{\frac{T_{T4}}{T_1}} = \left[\frac{\frac{\dot{W}}{\omega}M_2^* + \sqrt{\frac{T_0}{T_1}}M_3^* + D - P_1\frac{\left(\frac{P_4}{P_1}-\frac{P_2}{P_1}\right)\left(A_2+A_3\right)}{\omega a_1^*}}{\left(\frac{\dot{W}}{\omega}+1\right)M_4^*}\right]$$

In this case, the last term is that associated with the pressure gradient in the constant area mixing zone. Treating this last term in a manner similar to D, it may be put in the form

$$(37) \qquad \frac{A_3 P_1\left(\frac{P_4}{P_1}-\frac{P_2}{P_1}\right)\left(\frac{A_2}{A_3}+1\right)}{\frac{P_3}{gRT_3}\frac{a_3^*}{a_1^*}M_3^* A_3 \frac{2\gamma}{\gamma+1} gRT_1}$$

WHICH REDUCES TO

$$(38) \qquad \frac{P_4}{P_1}\beta - \frac{P_2}{P_1}\beta$$

WHERE

$$(39) \qquad \beta = \frac{\left(\frac{A_2}{A_3}+1\right)\frac{\gamma+1}{2\gamma}\sqrt{\frac{T_0}{T_1}}}{\frac{P_3}{P_1}M_3^*}$$

Considering the complete equation, number (36) and rearranging

$$(40) \qquad M_4^* = \frac{\frac{\dot{W}}{\omega}M_2^* + \sqrt{\frac{T_0}{T_1}}M_3^* + D - \frac{P_4}{P_1}\beta + \frac{P_2}{P_1}\beta}{\left(\frac{\dot{W}}{\omega}+1\right)\sqrt{\frac{T_{T_4}}{T_1}}}$$

REARRANGING THIS EXPRESSION

$$(41) \qquad \frac{P_4}{P_1} = \frac{\frac{\dot{W}}{\omega}M_2^* + \sqrt{\frac{T_0}{T_1}}M_3^* + D + \frac{P_2}{P_1}\beta - M_4^*\left(\frac{\dot{W}}{\omega}+1\right)\sqrt{\frac{T_{T_4}}{T_1}}}{\beta}$$

THIS CAN BE EXPRESSED AS

$$(42) \qquad \frac{P_4}{P_1} = \varepsilon - M_4^*\lambda$$

WHERE

$$(43) \qquad \varepsilon = \frac{\frac{\dot{W}}{\omega}M_2^* + \sqrt{\frac{T_0}{T_1}}M_3^* + D + \frac{P_2}{P_1}\beta}{\beta}$$

$$(44) \qquad \lambda = \frac{\left(\frac{\dot{W}}{\omega}+1\right)\sqrt{\frac{T_{T_4}}{T_1}}}{\beta}$$

Substituting this relationship in the previous continuity expression,(34)

$$(45)\quad M_4^* \left[\varepsilon - M_4^* \lambda\right] = \alpha - \alpha\left(\frac{\gamma-1}{\gamma+1}\right) M_4^{*2}$$

So THAT

$$(46)\quad M_4^{*2}\left[\alpha\left(\frac{\gamma-1}{\gamma+1}\right) - \lambda\right] + M_4^* \varepsilon - \alpha = 0$$

Which is in standard quadratic form, so that

$$(47)\quad M_4^* = \frac{-\varepsilon \pm \sqrt{\varepsilon^2 + 4.\left[\alpha\left(\frac{\gamma-1}{\gamma+1}\right) - \lambda\right]\alpha}}{2\left[\alpha\left(\frac{\gamma-1}{\gamma+1}\right) - \lambda\right]}$$

Where the positive radical is meaningful, This makes $\frac{P_4}{P_1}$ available, and

$$(48)\quad \frac{P_{T4}}{P_1} = \frac{\frac{P_4}{P_1}}{\left[1 - \frac{\gamma-1}{\gamma+1} M_4^{*2}\right]^{\frac{\gamma}{\gamma-1}}}$$

This value is compared with the demanded discharge total pressure ratio, PT5P1, and the area ratio, A2A3, varied in a systematic manner so that PT4P1 is equal to PT5P1. Having achieved this, by continuity,

$$(49)\quad \frac{A_5}{A_4} = \left(\frac{P_4}{P_1}\right)^{\frac{1}{\gamma}} \frac{M_4^*}{M_5^*}$$

$$(50)\quad \frac{P_{T5}}{P_1} = \frac{P_{T4}}{P_1}$$

$$(51) \qquad \frac{A_6}{A_4} = \left[\frac{1 - \frac{\gamma-1}{\gamma+1} M_4^{*2}}{\frac{2}{\gamma+1}} \right]^{\frac{1}{\gamma-1}} M_4^*$$

AND SO

$$\frac{A_2}{A_6}, \frac{A_3}{A_6}, \frac{A_5}{A_6}, \text{ and } \frac{A_2 + A_3}{A_6} \text{ ARE AVAILABLE.}$$

```
..JOB BELTER    ONE MINUTE MAX
      PROGRAM JETPUMP
C     CONSTANT PRESSURE HEATED JETPUMP, EXPLICIT SOLUTION
      READ  5,XPT5P1,XTOT1,XP0P1,XSACH2,GAMMA
    5 FORMAT(5F10.0)
      G=GAMMA
      CA=(G-1.)/(G+1.)
      CB=G/(G-1.)
      CD=(G-1.)/G
      CE=(G+1.)/(G-1.)
      CG=2./(G+1.)
      CH=2.*G/(G+1.)
      CJ=1./(G-1.)
      CK=1./G
      CN=(G+1.)/(2.*G)
      PT5P1=XPT5P1
      DO20 J=1,3
      XJ=J
      TOT1=XTOT1
      SACH5= (CE*(1.-(1./PT5P1)**CD))**.5
      A5A6=((CG/(1.-CA*(SACH5**2.)))**CJ)/SACH5
      CMA=PT5P1*SACH5
      DO30 K=1,5
      XK=K
      PRINT 60
  600FORMAT(1H1,///////4X,
     1   5HPT5P1 3X,4HTOT1 4X,4HA5A6 4X,5HSACH5 4X,3HCMA
     2 4X,32HCONSTANT PRESSURE HEATED JETPUMP  /)
      PRINT 70,PT5P1,TOT1,A5A6,SACH5,CMA
   70 FORMAT (5F8.3)
      POP1=XP0P1
      DO 40 M=1,5
      XM=M
      IF(POP1-PT5P1) 40,40,16
   16 CONTINUE
      PRINT 80
  800FORMAT (/3X,
     1        5H POP1 3X,5HSACH2 3X,5HSACH3 3X,5HSACH4 3X,
     24HA2A3 4X,4HA2A6 4X,4HA3A6 4X,5HA236 3X,4HA4A6 4X,
     34HWMWJ 4X,5HTT5T1 3X,3HCPM 5X,3HCQM /)
      P1P0 =1./POP1
      T1T0 =1./TOT1
      PT4P1=PT5P1
      B=TOT1**.5
      SACH2=XSACH2
      DO 50 N=1,10
      XN=N
      P2P1= (1.-CA*(SACH2**2.))**CB
      P4P1=P2P1
      P4PT4=P4P1/PT4P1
      SACH4=(CE*(1.-(P4PT4**CJ)))**.5
      SACH3=(CE*(1.-((P2P1*P1P0)**CD)))**.5
      P3P1=P2P1
      IF(SACH3-1.) 10,11,11
   11 SACH3=1.0
      P3P1=POP1*(CG**CB)
   10 P2P3=P2P1/P3P1
      IF (SACH2) 12,12,13
   12 WMWJ=0.0
      TT5T1=TOT1
      A2A3 =X
      A2A6=X
      A3A6=X
      A236=X
      A4A6=X
      GO TO 14
```

```
 13 CONTINUE
    R3R2 = (P3P1/(P2P1**CK))/(TOT1*(1.-(CA*(SACH3**2.))))
    D=B*CN*(1.-P2P3)*(1.-(CA*(SACH3*SACH3)))/SACH3
    AA=(SACH4*SACH4)-(SACH2*SACH2)
    BB2=(SACH4*SACH4)*(B*B+1.)
    BB=BB2-(2.*B*SACH2*SACH3)-(2.*SACH2*D)
    CC2=(B*B)*((SACH4*SACH4)-(SACH3*SACH3))
    CC=CC2- (2.*B*SACH3*D) -(D*D)
    WMWJ=(-BB+((BB*BB)-(4.*AA*CC))**.5)/(2.*AA)
 15 TT4T1= (WMWJ+TOT1)/(WMWJ+1.)
    TT5T1=TT4T1
    A2A3 = WMWJ*B* R3R2*SACH3/SACH2
    R4R2 = (P2P1**CD)/(TT4T1*(1.-CA*(SACH4**2.)))
    A4X  = SACH2*A2A3+R3R2*B*SACH3
    A4A3 =  A4X/(R4R2*(TT4T1**.5)*SACH4)
    A5A4 = ((P2P1**CK)*SACH4)/SACH5
    A6A4 = (((1.-CA*(SACH4**2.))/CG)**CJ)*SACH4
    A2A6 = A2A3/(A4A3*A6A4)
    A3A6 = A2A6/A2A3
    A236 = (A2A3+1.) *A3A6
    A4A6 = 1./A6A4
 14 CMX  = CA*(1.+WMWJ)*SACH5*TT5T1**.5
    CMP  = CMX/((POP1**CD)-1.)
    CPM  = 1./CMP
    CMQ = CMX/(TOT1-(POP1**CD))
    CQM = 1./CMQ
   OPRINT 90, POP1,SACH2,SACH3,SACH4,A2A3,A2A6,A3A6,
   1A236,A4A6,WMWJ,TT5T1,CPM,CQM
 90 FORMAT (13F8.3)
 50 SACH2=XSACH2+.1*XN
 40 POP1 =XPOP1+.4*XM
 30 TOT1 = XTOT1+1.*XK
 20 PT5P1=XPT5P1+.1*XJ
    END
    END

1.10      1.0        1.2        0.0        1.4
```

CONSTANT PRESSURE HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.100	1.000	1.690	.401	.442

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.200	.000	.552	.401	.000	.000	.000	.000	.000	.000	1.000	.799	-.799
1.200	.100	.560	.413	2.768	2.235	.807	3.043	1.648	.469	1.000	.544	-.544
1.200	.200	.585	.447	1.719	1.269	.738	2.008	1.543	.558	1.000	.513	-.513
1.200	.300	.624	.499	1.387	.935	.674	1.610	1.413	.633	1.000	.490	-.490
1.200	.400	.676	.563	1.230	.763	.620	1.382	1.290	.692	1.000	.472	-.472
1.200	.500	.736	.636	1.142	.658	.576	1.234	1.187	.736	1.000	.460	-.460
1.200	.600	.804	.715	1.087	.590	.543	1.133	1.108	.770	1.000	.451	-.451
1.200	.700	.877	.799	1.050	.546	.520	1.066	1.051	.795	1.000	.445	-.445
1.200	.800	.955	.385	1.024	.519	.506	1.025	1.016	.815	1.000	.440	-.440
1.200	.900	1.000	.974	1.007	.505	.501	1.006	1.001	.829	1.000	.437	-.437

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.401	.000	.000	.000	.000	.000	.000	1.000	2.148	-2.148
1.600	.100	.873	.413	14.657	4.164	.284	4.449	1.648	1.467	1.000	.871	-.871
1.600	.200	.888	.447	9.054	2.271	.251	2.522	1.543	1.783	1.000	.772	-.772
1.600	.300	.912	.499	7.241	1.631	.225	1.856	1.413	2.082	1.000	.697	-.697
1.600	.400	.945	.563	6.347	1.308	.206	1.514	1.290	2.348	1.000	.642	-.642
1.600	.500	.986	.636	5.810	1.117	.192	1.310	1.187	2.575	1.000	.601	-.601
1.600	.600	1.000	.715	5.457	.996	.183	1.179	1.108	2.765	1.000	.570	-.570
1.600	.700	1.000	.799	5.235	.918	.175	1.094	1.051	2.920	1.000	.548	-.548
1.600	.800	1.000	.385	5.104	.869	.170	1.040	1.016	3.037	1.000	.532	-.532
1.600	.900	1.000	.974	5.034	.842	.167	1.010	1.001	3.109	1.000	.523	-.523

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.401	.000	.000	.000	.000	.000	.000	1.000	3.273	-3.273
2.000	.100	1.000	.413	25.541	4.673	.183	4.856	1.648	2.006	1.000	1.089	-1.089
2.000	.200	1.000	.447	15.808	2.518	.159	2.678	1.543	2.452	1.000	.948	-.948
2.000	.300	1.000	.499	12.681	1.793	.141	1.935	1.413	2.889	1.000	.842	-.842
2.000	.400	1.000	.563	11.164	1.431	.128	1.559	1.290	3.292	1.000	.763	-.763
2.000	.500	1.000	.636	10.284	1.217	.118	1.336	1.187	3.646	1.000	.704	-.704
2.000	.600	1.000	.715	9.735	1.082	.111	1.194	1.108	3.947	1.000	.662	-.662
2.000	.700	1.000	.799	9.390	.995	.106	1.101	1.051	4.190	1.000	.631	-.631
2.000	.800	1.000	.885	9.181	.940	.102	1.043	1.016	4.370	1.000	.610	-.610
2.000	.900	1.000	.974	9.062	.910	.100	1.011	1.001	4.476	1.000	.598	-.598

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.401	.000	.000	.000	.000	.000	.000	1.000	4.247	-4.247
2.400	.100	1.000	.413	36.110	4.921	.136	5.057	1.648	2.364	1.000	1.263	-1.263
2.400	.200	1.000	.447	22.412	2.636	.118	2.753	1.543	2.897	1.000	1.090	-1.090
2.400	.300	1.000	.499	18.050	1.869	.104	1.972	1.413	3.427	1.000	.959	-.959
2.400	.400	1.000	.563	15.957	1.486	.093	1.579	1.290	3.921	1.000	.863	-.863
2.400	.500	1.000	.636	14.757	1.262	.086	1.347	1.187	4.360	1.000	.792	-.792
2.400	.600	1.000	.715	14.014	1.120	.080	1.200	1.108	4.734	1.000	.741	-.741
2.400	.700	1.000	.799	13.545	1.028	.076	1.104	1.051	5.036	1.000	.704	-.704
2.400	.800	1.000	.385	13.258	.971	.073	1.044	1.016	5.258	1.000	.679	-.679
2.400	.900	1.000	.974	13.089	.939	.072	1.011	1.001	5.388	1.000	.665	-.665

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.401	.000	.000	.000	.000	.000	.000	1.000	5.111	-5.111
2.800	.100	1.000	.413	46.679	5.067	.109	5.176	1.648	2.619	1.000	1.412	-1.412
2.800	.200	1.000	.447	29.016	2.704	.093	2.798	1.543	3.215	1.000	1.213	-1.213
2.800	.300	1.000	.499	23.418	1.912	.082	1.994	1.413	3.811	1.000	1.062	-1.062
2.800	.400	1.000	.563	20.750	1.518	.073	1.591	1.290	4.370	1.000	.952	-.952
2.800	.500	1.000	.636	19.231	1.287	.067	1.354	1.187	4.870	1.000	.871	-.871
2.800	.600	1.000	.715	18.292	1.141	.062	1.204	1.108	5.297	1.000	.812	-.812
2.800	.700	1.000	.799	17.700	1.047	.059	1.106	1.051	5.641	1.000	.770	-.770
2.800	.800	1.000	.385	17.335	.988	.057	1.045	1.016	5.893	1.000	.742	-.742
2.800	.900	1.000	.974	17.116	.955	.056	1.011	1.001	6.039	1.000	.726	-.726

CONSTANT PRESSURE HEATED JETPUMP

PT5P1	T0T1	A5A6	SACH5	CMA
1.100	2.000	1.690	.401	.442

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.200	.000	.552	.401	.000	.000	.000	.000	.000	.000	2.000	.565	10.002
1.200	.100	.560	.413	2.624	2.127	.811	2.938	1.648	.629	1.614	.386	6.837
1.200	.200	.585	.447	1.604	1.197	.746	1.944	1.543	.736	1.576	.367	6.491
1.200	.300	.624	.499	1.266	.871	.688	1.560	1.413	.816	1.551	.353	6.255
1.200	.400	.676	.563	1.090	.699	.641	1.340	1.290	.866	1.536	.346	6.116
1.200	.500	.736	.636	.974	.590	.606	1.196	1.187	.888	1.530	.342	6.059
1.200	.600	.804	.715	.884	.515	.583	1.098	1.108	.885	1.530	.343	6.065
1.200	.700	.877	.799	.806	.461	.572	1.032	1.051	.864	1.537	.346	6.123
1.200	.800	.955	.885	.735	.420	.572	.992	1.016	.826	1.548	.352	6.226
1.200	.900	1.000	.974	.667	.389	.584	.973	1.001	.777	1.563	.360	6.369

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.401	.000	.000	.000	.000	.000	.000	2.000	1.519	9.049
1.600	.100	.873	.413	14.191	4.051	.285	4.336	1.648	2.009	1.332	.618	3.684
1.600	.200	.888	.447	8.705	2.208	.254	2.462	1.543	2.424	1.292	.552	3.288
1.600	.300	.912	.499	6.892	1.583	.230	1.813	1.413	2.802	1.263	.503	2.995
1.600	.400	.945	.563	5.959	1.267	.213	1.479	1.290	3.118	1.243	.468	2.788
1.600	.500	.986	.636	5.362	1.078	.201	1.279	1.187	3.362	1.229	.444	2.646
1.600	.600	1.000	.715	4.929	.957	.194	1.151	1.108	3.533	1.221	.429	2.555
1.600	.700	1.000	.799	4.605	.877	.190	1.067	1.051	3.633	1.216	.420	2.505
1.600	.800	1.000	.885	4.347	.823	.189	1.013	1.016	3.657	1.215	.418	2.493
1.600	.900	1.000	.974	4.116	.789	.192	.981	1.001	3.595	1.218	.424	2.524

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.401	.000	.000	.000	.000	.000	.000	2.000	2.314	8.253
2.000	.100	1.000	.413	24.872	4.570	.184	4.754	1.648	2.763	1.266	.773	2.757
2.000	.200	1.000	.447	15.314	2.464	.161	2.625	1.543	3.360	1.229	.677	2.415
2.000	.300	1.000	.499	12.193	1.754	.144	1.898	1.413	3.929	1.203	.605	2.159
2.000	.400	1.000	.563	10.628	1.399	.132	1.530	1.290	4.432	1.184	.554	1.975
2.000	.500	1.000	.636	9.668	1.188	.123	1.311	1.187	4.848	1.171	.517	1.844
2.000	.600	1.000	.715	9.010	1.054	.117	1.171	1.108	5.166	1.162	.492	1.756
2.000	.700	1.000	.799	8.524	.966	.113	1.080	1.051	5.379	1.157	.477	1.701
2.000	.800	1.000	.885	8.137	.909	.112	1.021	1.016	5.477	1.154	.470	1.677
2.000	.900	1.000	.974	7.791	.875	.112	.987	1.001	5.443	1.155	.473	1.686

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.401	.000	.000	.000	.000	.000	.000	2.000	3.003	7.564
2.400	.100	1.000	.413	35.263	4.824	.137	4.961	1.648	3.264	1.235	.896	2.258
2.400	.200	1.000	.447	21.790	2.586	.119	2.705	1.543	3.984	1.201	.778	1.959
2.400	.300	1.000	.499	17.437	1.834	.105	1.939	1.413	4.682	1.176	.689	1.736
2.400	.400	1.000	.563	15.287	1.458	.095	1.554	1.290	5.312	1.158	.625	1.575
2.400	.500	1.000	.636	13.988	1.237	.088	1.326	1.187	5.845	1.146	.580	1.460
2.400	.600	1.000	.715	13.108	1.097	.084	1.180	1.108	6.263	1.138	.548	1.381
2.400	.700	1.000	.799	12.465	1.005	.081	1.086	1.051	6.554	1.132	.528	1.331
2.400	.800	1.000	.885	11.955	.946	.079	1.025	1.016	6.705	1.130	.519	1.306
2.400	.900	1.000	.974	11.502	.911	.079	.991	1.001	6.696	1.130	.519	1.308

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.401	.000	.000	.000	.000	.000	.000	2.000	3.614	6.953
2.800	.100	1.000	.413	45.659	4.976	.109	5.085	1.648	3.623	1.216	1.003	1.929
2.800	.200	1.000	.447	28.270	2.658	.094	2.752	1.543	4.430	1.184	.865	1.664
2.800	.300	1.000	.499	22.685	1.880	.083	1.963	1.413	5.221	1.161	.763	1.467
2.800	.400	1.000	.563	19.950	1.493	.075	1.567	1.290	5.942	1.144	.688	1.324
2.800	.500	1.000	.636	18.313	1.265	.069	1.334	1.187	6.559	1.132	.635	1.223
2.800	.600	1.000	.715	17.213	1.121	.065	1.186	1.108	7.049	1.124	.599	1.152
2.800	.700	1.000	.799	16.413	1.026	.063	1.089	1.051	7.398	1.119	.575	1.107
2.800	.800	1.000	.885	15.783	.966	.061	1.028	1.016	7.588	1.116	.563	1.084
2.800	.900	1.000	.974	15.225	.931	.061	.992	1.001	7.597	1.116	.563	1.083

CONSTANT PRESSURE HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.100	3.000	1.690	.401	.442

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.200	.000	.552	.401	.000	.000	.000	.000	.000	.000	3.000	.461	16.795
1.200	.100	.560	.413	2.423	1.976	.815	2.791	1.648	.711	2.169	.317	11.545
1.200	.200	.585	.447	1.448	1.097	.758	1.854	1.543	.813	2.103	.304	11.062
1.200	.300	.624	.499	1.106	.783	.708	1.491	1.413	.874	2.067	.297	10.797
1.200	.400	.676	.563	.913	.612	.670	1.282	1.290	.889	2.059	.295	10.733
1.200	.500	.736	.636	.775	.500	.645	1.145	1.187	.865	2.072	.298	10.835
1.200	.600	.804	.715	.661	.419	.634	1.053	1.108	.812	2.104	.304	11.070
1.200	.700	.877	.799	.564	.357	.634	.991	1.051	.739	2.150	.313	11.406
1.200	.800	.955	.885	.478	.309	.646	.955	1.016	.658	2.206	.325	11.813
1.200	.900	1.000	.974	.403	.270	.669	.939	1.001	.574	2.270	.337	12.264

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.401	.000	.000	.000	.000	.000	.000	3.000	1.240	16.017
1.600	.100	.873	.413	13.507	3.881	.287	4.169	1.648	2.342	1.598	.508	6.565
1.600	.200	.888	.447	8.192	2.113	.258	2.371	1.543	2.794	1.527	.458	5.917
1.600	.300	.912	.499	6.382	1.510	.237	1.746	1.413	3.178	1.479	.423	5.461
1.600	.400	.945	.563	5.400	1.202	.223	1.425	1.290	3.460	1.448	.400	5.169
1.600	.500	.986	.636	4.723	1.016	.215	1.231	1.187	3.627	1.432	.388	5.010
1.600	.600	1.000	.715	4.190	.893	.213	1.106	1.108	3.677	1.428	.384	4.964
1.600	.700	1.000	.799	3.743	.807	.215	1.022	1.051	3.616	1.433	.389	5.020
1.600	.800	1.000	.385	3.341	.744	.223	.966	1.016	3.443	1.450	.401	5.185
1.600	.900	1.000	.974	2.951	.695	.235	.930	1.001	3.156	1.481	.425	5.484

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.401	.000	.000	.000	.000	.000	.000	3.000	1.890	15.367
2.000	.100	1.000	.413	23.876	4.415	.185	4.600	1.648	3.248	1.471	.635	5.166
2.000	.200	1.000	.447	14.578	2.381	.163	2.545	1.543	3.917	1.407	.561	4.564
2.000	.300	1.000	.499	11.468	1.694	.148	1.842	1.413	4.526	1.362	.508	4.128
2.000	.400	1.000	.563	9.835	1.348	.137	1.485	1.290	5.023	1.332	.471	3.829
2.000	.500	1.000	.636	8.762	1.141	.130	1.272	1.187	5.381	1.313	.448	3.640
2.000	.600	1.000	.715	7.952	1.008	.127	1.134	1.108	5.584	1.304	.435	3.541
2.000	.700	1.000	.799	7.275	.917	.126	1.043	1.051	5.623	1.302	.433	3.522
2.000	.800	1.000	.885	6.656	.855	.128	.983	1.016	5.487	1.308	.441	3.587
2.000	.900	1.000	.974	6.033	.810	.134	.945	1.001	5.162	1.325	.462	3.753

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.401	.000	.000	.000	.000	.000	.000	3.000	2.452	14.805
2.400	.100	1.000	.413	33.994	4.679	.138	4.816	1.648	3.854	1.412	.736	4.446
2.400	.200	1.000	.447	20.857	2.511	.120	2.631	1.543	4.670	1.353	.644	3.888
2.400	.300	1.000	.499	16.521	1.781	.108	1.888	1.413	5.433	1.311	.577	3.481
2.400	.400	1.000	.563	14.286	1.414	.099	1.513	1.290	6.080	1.282	.530	3.198
2.400	.500	1.000	.636	12.843	1.198	.093	1.291	1.187	6.573	1.264	.499	3.012
2.400	.600	1.000	.715	11.770	1.058	.090	1.148	1.108	6.887	1.254	.481	2.904
2.400	.700	1.000	.799	10.879	.965	.089	1.054	1.051	7.007	1.250	.475	2.865
2.400	.800	1.000	.885	10.065	.902	.090	.992	1.016	6.914	1.253	.480	2.895
2.400	.900	1.000	.974	9.239	.860	.093	.953	1.001	6.588	1.264	.498	3.006

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.401	.000	.000	.000	.000	.000	.000	3.000	2.951	14.306
2.800	.100	1.000	.413	44.128	4.837	.110	4.946	1.648	4.288	1.378	.823	3.991
2.800	.200	1.000	.447	27.148	2.587	.095	2.682	1.543	5.210	1.322	.716	3.470
2.800	.300	1.000	.499	21.585	1.831	.085	1.916	1.413	6.084	1.282	.637	3.089
2.800	.400	1.000	.563	18.750	1.453	.077	1.530	1.290	6.840	1.255	.582	2.821
2.800	.500	1.000	.636	16.941	1.229	.073	1.302	1.187	7.431	1.237	.545	2.642
2.800	.600	1.000	.715	15.607	1.086	.070	1.156	1.108	7.828	1.227	.523	2.534
2.800	.700	1.000	.799	14.508	.991	.068	1.060	1.051	8.009	1.222	.513	2.488
2.800	.800	1.000	.385	13.505	.928	.069	.997	1.016	7.952	1.223	.516	2.502
2.800	.900	1.000	.974	12.489	.887	.071	.958	1.001	7.632	1.232	.534	2.586

CONSTANT PRESSURE HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.100	4.000	1.690	.401	.442

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.200	.000	.552	.401	.000	.000	.000	.000	.000	.000	4.000	.400	22.018
1.200	.100	.560	.413	2.245	1.840	.819	2.659	1.648	.761	2.704	.276	15.211
1.200	.200	.585	.447	1.313	1.008	.767	1.775	1.543	.852	2.620	.267	14.691
1.200	.300	.624	.499	.974	.706	.725	1.431	1.413	.889	2.588	.263	14.491
1.200	.400	.676	.563	.776	.538	.694	1.233	1.290	.872	2.603	.265	14.582
1.200	.500	.736	.636	.631	.427	.677	1.104	1.187	.813	2.654	.271	14.906
1.200	.600	.804	.715	.515	.346	.672	1.018	1.108	.730	2.734	.279	15.396
1.200	.700	.877	.799	.420	.285	.678	.963	1.051	.636	2.834	.290	15.988
1.200	.800	.955	.385	.342	.237	.694	.931	1.016	.544	2.943	.302	16.627
1.200	.900	1.000	.974	.279	.200	.719	.919	1.001	.459	3.057	.313	17.268

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.401	.000	.000	.000	.000	.000	.000	4.000	1.074	21.343
1.600	.100	.873	.413	12.857	3.719	.289	4.008	1.648	2.574	1.839	.443	8.806
1.600	.200	.888	.447	7.709	2.020	.262	2.282	1.543	3.035	1.743	.403	8.011
1.600	.300	.912	.499	5.906	1.438	.243	1.681	1.413	3.395	1.683	.377	7.487
1.600	.400	.945	.563	4.884	1.137	.233	1.370	1.290	3.614	1.650	.362	7.202
1.600	.500	.986	.636	4.147	.952	.230	1.181	1.187	3.677	1.641	.358	7.124
1.600	.600	1.000	.715	3.543	.825	.233	1.058	1.108	3.591	1.653	.364	7.231
1.600	.700	1.000	.799	3.022	.732	.242	.974	1.051	3.371	1.686	.378	7.520
1.600	.800	1.000	.885	2.553	.658	.258	.916	1.016	3.037	1.743	.403	8.009
1.600	.900	1.000	.974	2.117	.595	.281	.877	1.001	2.614	1.830	.439	8.731

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.401	.000	.000	.000	.000	.000	.000	4.000	1.637	20.781
2.000	.100	1.000	.413	22.916	4.263	.186	4.449	1.648	3.600	1.652	.554	7.029
2.000	.200	1.000	.447	13.870	2.299	.166	2.465	1.543	4.303	1.566	.493	6.263
2.000	.300	1.000	.499	10.773	1.633	.152	1.785	1.413	4.909	1.508	.451	5.728
2.000	.400	1.000	.563	9.081	1.295	.143	1.438	1.290	5.356	1.472	.424	5.390
2.000	.500	1.000	.636	7.909	1.092	.138	1.230	1.187	5.609	1.454	.411	5.216
2.000	.600	1.000	.715	6.973	.957	.137	1.094	1.108	5.653	1.451	.408	5.186
2.000	.700	1.000	.799	6.147	.862	.140	1.002	1.051	5.485	1.463	.417	5.299
2.000	.800	1.000	.885	5.364	.791	.148	.939	1.016	5.106	1.491	.439	5.574
2.000	.900	1.000	.974	4.580	.734	.160	.894	1.001	4.525	1.543	.477	6.056

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.401	.000	.000	.000	.000	.000	.000	4.000	2.124	20.294
2.400	.100	1.000	.413	32.763	4.536	.138	4.674	1.648	4.289	1.567	.641	6.130
2.400	.200	1.000	.447	19.952	2.435	.122	2.557	1.543	5.159	1.487	.566	5.404
2.400	.300	1.000	.499	15.634	1.726	.110	1.837	1.413	5.937	1.432	.512	4.889
2.400	.400	1.000	.563	13.322	1.369	.103	1.471	1.290	6.547	1.398	.476	4.549
2.400	.500	1.000	.636	11.749	1.155	.098	1.254	1.187	6.943	1.378	.456	4.353
2.400	.600	1.000	.715	10.503	1.016	.097	1.112	1.108	7.097	1.371	.448	4.282
2.400	.700	1.000	.799	9.404	.920	.098	1.017	1.051	6.993	1.375	.453	4.330
2.400	.800	1.000	.885	8.348	.850	.102	.952	1.016	6.622	1.394	.472	4.511
2.400	.900	1.000	.974	7.262	.798	.110	.908	1.001	5.978	1.430	.509	4.864

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.401	.000	.000	.000	.000	.000	.000	4.000	2.556	19.861
2.800	.100	1.000	.413	42.636	4.700	.110	4.810	1.648	4.784	1.519	.717	5.573
2.800	.200	1.000	.447	26.055	2.516	.097	2.612	1.543	5.774	1.443	.628	4.882
2.800	.300	1.000	.499	20.514	1.780	.087	1.867	1.413	6.677	1.391	.565	4.387
2.800	.400	1.000	.563	17.586	1.411	.080	1.491	1.290	7.408	1.357	.522	4.056
2.800	.500	1.000	.636	15.617	1.191	.076	1.267	1.187	7.910	1.337	.496	3.856
2.800	.600	1.000	.715	14.070	1.049	.075	1.123	1.108	8.149	1.328	.485	3.768
2.800	.700	1.000	.799	12.709	.952	.075	1.026	1.051	8.101	1.330	.487	3.785
2.800	.800	1.000	.885	11.396	.883	.078	.961	1.016	7.748	1.343	.504	3.918
2.800	.900	1.000	.974	10.029	.833	.083	.916	1.001	7.077	1.371	.540	4.199

CONSTANT PRESSURE HEATED JETPUMP

PT5P1	T0T1	A5A6	SACH5	CMA
1.100	5.000	1.690	.401	.442

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.200	.000	.552	.401	.000	.000	.000	.000	.000	.000	5.000	.357	26.377
1.200	.100	.560	.413	2.094	1.723	.823	2.546	1.648	.793	3.231	.248	18.301
1.200	.200	.585	.447	1.202	.932	.776	1.708	1.543	.872	3.137	.241	17.791
1.200	.300	.624	.499	.870	.643	.738	1.381	1.413	.887	3.119	.240	17.693
1.200	.400	.676	.563	.673	.480	.714	1.194	1.290	.845	3.168	.243	17.958
1.200	.500	.736	.636	.530	.372	.701	1.073	1.187	.764	3.267	.251	18.495
1.200	.600	.804	.715	.420	.294	.700	.994	1.108	.665	3.402	.260	19.202
1.200	.700	.877	.799	.334	.236	.707	.943	1.051	.565	3.556	.271	19.986
1.200	.800	.955	.885	.266	.192	.724	.916	1.016	.473	3.716	.282	20.777
1.200	.900	1.000	.974	.213	.159	.748	.907	1.001	.392	3.874	.292	21.528

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.401	.000	.000	.000	.000	.000	.000	5.000	.961	25.773
1.600	.100	.873	.413	12.272	3.570	.291	3.861	1.648	2.747	2.067	.399	10.696
1.600	.200	.888	.447	7.277	1.934	.266	2.200	1.543	3.203	1.952	.366	9.814
1.600	.300	.912	.499	5.485	1.370	.250	1.620	1.413	3.526	1.884	.346	9.278
1.600	.400	.945	.563	4.438	1.076	.242	1.318	1.290	3.671	1.856	.338	9.056
1.600	.500	.986	.636	3.662	.891	.243	1.134	1.187	3.630	1.864	.340	9.117
1.600	.600	1.000	.715	3.021	.761	.252	1.013	1.108	3.423	1.904	.352	9.442
1.600	.700	1.000	.799	2.473	.662	.268	.929	1.051	3.084	1.979	.374	10.029
1.600	.800	1.000	.885	1.998	.580	.290	.871	1.016	2.658	2.093	.406	10.888
1.600	.900	1.000	.974	1.588	.509	.321	.830	1.001	2.192	2.253	.448	12.028

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.401	.000	.000	.000	.000	.000	.000	5.000	1.464	25.270
2.000	.100	1.000	.413	22.039	4.123	.187	4.311	1.648	3.871	1.821	.498	8.597
2.000	.200	1.000	.447	13.224	2.222	.168	2.390	1.543	4.587	1.716	.447	7.721
2.000	.300	1.000	.499	10.144	1.575	.155	1.731	1.413	5.168	1.649	.413	7.135
2.000	.400	1.000	.563	8.405	1.245	.148	1.393	1.290	5.542	1.611	.394	6.804
2.000	.500	1.000	.636	7.156	1.043	.146	1.189	1.187	5.674	1.599	.388	6.695
2.000	.600	1.000	.715	6.127	.906	.148	1.054	1.108	5.554	1.610	.394	6.794
2.000	.700	1.000	.799	5.206	.806	.155	.961	1.051	5.194	1.646	.412	7.111
2.000	.800	1.000	.885	4.343	.726	.167	.893	1.016	4.622	1.712	.445	7.683
2.000	.900	1.000	.974	3.521	.657	.187	.843	1.001	3.889	1.818	.497	8.572

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.401	.000	.000	.000	.000	.000	.000	5.000	1.899	24.835
2.400	.100	1.000	.413	31.630	4.403	.139	4.542	1.648	4.629	1.711	.577	7.543
2.400	.200	1.000	.447	19.121	2.364	.124	2.488	1.543	5.527	1.613	.512	6.699
2.400	.300	1.000	.499	14.822	1.674	.113	1.787	1.413	6.293	1.549	.468	6.119
2.400	.400	1.000	.563	12.445	1.324	.106	1.430	1.290	6.838	1.510	.441	5.765
2.400	.500	1.000	.636	10.764	1.113	.103	1.216	1.187	7.111	1.493	.429	5.603
2.400	.600	1.000	.715	9.381	.972	.104	1.076	1.108	7.087	1.495	.430	5.617
2.400	.700	1.000	.799	8.129	.872	.107	.980	1.051	6.759	1.516	.445	5.814
2.400	.800	1.000	.885	6.920	.795	.115	.910	1.016	6.137	1.560	.476	6.229
2.400	.900	1.000	.974	5.715	.731	.128	.859	1.001	5.260	1.639	.530	6.929

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.401	.000	.000	.000	.000	.000	.000	5.000	2.286	24.448
2.800	.100	1.000	.413	41.258	4.572	.111	4.683	1.648	5.176	1.648	.645	6.896
2.800	.200	1.000	.447	25.045	2.448	.098	2.546	1.543	6.205	1.555	.569	6.084
2.800	.300	1.000	.499	19.528	1.732	.089	1.820	1.413	7.106	1.493	.516	5.518
2.800	.400	1.000	.563	16.519	1.370	.083	1.453	1.290	7.780	1.456	.483	5.161
2.800	.500	1.000	.636	14.413	1.153	.080	1.233	1.187	8.162	1.437	.465	4.978
2.800	.600	1.000	.715	12.691	1.010	.080	1.090	1.108	8.218	1.434	.463	4.953
2.800	.700	1.000	.799	11.125	.910	.082	.991	1.051	7.928	1.448	.476	5.088
2.800	.800	1.000	.885	9.594	.835	.087	.922	1.016	7.293	1.482	.506	5.414
2.800	.900	1.000	.974	8.031	.774	.096	.870	1.001	6.336	1.545	.560	5.995

CONSTANT PRESSURE HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.200	1.000	1.309	.552	.662

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.552	.000	.000	.000	.000	.000	.000	1.000	1.563	-1.563
1.600	.100	.873	.560	6.789	3.091	.455	3.547	1.294	.680	1.000	.930	-.930
1.600	.200	.888	.585	3.995	1.703	.426	2.129	1.255	.786	1.000	.875	-.875
1.600	.300	.912	.624	3.088	1.238	.401	1.639	1.201	.888	1.000	.828	-.828
1.600	.400	.945	.676	2.647	1.007	.380	1.387	1.144	.979	1.000	.790	-.790
1.600	.500	.986	.736	2.389	.870	.364	1.235	1.091	1.059	1.000	.759	-.759
1.600	.600	1.000	.804	2.224	.784	.353	1.137	1.049	1.127	1.000	.735	-.735
1.600	.700	1.000	.877	2.121	.729	.344	1.072	1.018	1.183	1.000	.716	-.716
1.600	.800	1.000	.955	2.058	.694	.337	1.031	1.002	1.225	1.000	.702	-.702
1.600	.900	1.000	1.036	2.018	.674	.334	1.008	1.002	1.246	1.000	.696	-.696

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.552	.000	.000	.000	.000	.000	.000	1.000	2.381	-2.381
2.000	.100	1.000	.560	13.323	3.906	.293	4.199	1.294	1.046	1.000	1.164	-1.164
2.000	.200	1.000	.585	7.841	2.123	.271	2.393	1.255	1.216	1.000	1.074	-1.074
2.000	.300	1.000	.624	6.068	1.528	.252	1.780	1.201	1.382	1.000	.999	-.999
2.000	.400	1.000	.676	5.213	1.233	.236	1.469	1.144	1.537	1.000	.938	-.938
2.000	.500	1.000	.736	4.727	1.060	.224	1.284	1.091	1.676	1.000	.890	-.890
2.000	.600	1.000	.804	4.427	.950	.215	1.155	1.049	1.795	1.000	.852	-.852
2.000	.700	1.000	.877	4.237	.880	.208	1.087	1.018	1.891	1.000	.824	-.824
2.000	.800	1.000	.955	4.117	.835	.203	1.037	1.002	1.959	1.000	.805	-.805
2.000	.900	1.000	1.036	4.036	.809	.200	1.009	1.002	1.994	1.000	.795	-.795

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.552	.000	.000	.000	.000	.000	.000	1.000	3.090	-3.090
2.400	.100	1.000	.560	19.705	4.303	.218	4.521	1.294	1.290	1.000	1.349	-1.349
2.400	.200	1.000	.585	11.620	2.322	.200	2.522	1.255	1.502	1.000	1.235	-1.235
2.400	.300	1.000	.624	9.016	1.662	.184	1.847	1.201	1.712	1.000	1.139	-1.139
2.400	.400	1.000	.676	7.770	1.335	.172	1.507	1.144	1.909	1.000	1.062	-1.062
2.400	.500	1.000	.736	7.064	1.144	.162	1.306	1.091	2.087	1.000	1.001	-1.001
2.400	.600	1.000	.804	6.629	1.023	.154	1.177	1.049	2.240	1.000	.954	-.954
2.400	.700	1.000	.877	6.353	.945	.149	1.093	1.018	2.362	1.000	.919	-.919
2.400	.800	1.000	.955	6.175	.895	.145	1.040	1.002	2.449	1.000	.896	-.896
2.400	.900	1.000	1.036	6.054	.867	.143	1.010	1.002	2.492	1.000	.885	-.885

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.552	.000	.000	.000	.000	.000	.000	1.000	3.719	-3.719
2.800	.100	1.000	.560	26.087	4.538	.174	4.712	1.294	1.464	1.000	1.509	-1.509
2.800	.200	1.000	.585	15.398	2.439	.158	2.597	1.255	1.706	1.000	1.374	-1.374
2.800	.300	1.000	.624	11.964	1.740	.145	1.885	1.201	1.947	1.000	1.262	-1.262
2.800	.400	1.000	.676	10.326	1.394	.135	1.529	1.144	2.175	1.000	1.171	-1.171
2.800	.500	1.000	.736	9.400	1.192	.127	1.318	1.091	2.381	1.000	1.100	-1.100
2.800	.600	1.000	.804	8.832	1.064	.120	1.184	1.049	2.558	1.000	1.045	-1.045
2.800	.700	1.000	.877	8.469	.981	.116	1.097	1.018	2.699	1.000	1.005	-1.005
2.800	.800	1.000	.955	8.233	.929	.113	1.042	1.002	2.799	1.000	.979	-.979
2.800	.900	1.000	1.036	8.072	.899	.111	1.010	1.002	2.848	1.000	.966	-.966

CONSTANT PRESSURE HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.200	2.000	1.309	.552	.662

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.552	.000	.000	.000	.000	.000	.000	2.000	1.105	6.583
1.600	.100	.873	.560	6.501	2.969	.457	3.426	1.294	.920	1.521	.660	3.931
1.600	.200	.888	.585	3.796	1.630	.429	2.060	1.255	1.057	1.486	.623	3.713
1.600	.300	.912	.624	2.904	1.181	.406	1.587	1.201	1.181	1.459	.593	3.535
1.600	.400	.945	.676	2.457	.954	.388	1.343	1.144	1.285	1.438	.570	3.398
1.600	.500	.986	.736	2.181	.820	.376	1.195	1.091	1.367	1.422	.553	3.297
1.600	.600	1.000	.804	1.989	.732	.368	1.100	1.049	1.426	1.412	.542	3.230
1.600	.700	1.000	.877	1.850	.673	.364	1.036	1.018	1.459	1.407	.536	3.192
1.600	.800	1.000	.955	1.741	.632	.363	.995	1.002	1.465	1.406	.535	3.186
1.600	.900	1.000	1.036	1.644	.603	.367	.969	1.002	1.436	1.411	.540	3.218

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.552	.000	.000	.000	.000	.000	.000	2.000	1.684	6.004
2.000	.100	1.000	.560	12.854	3.781	.294	4.075	1.294	1.428	1.412	.825	2.943
2.000	.200	1.000	.585	7.524	2.052	.273	2.325	1.255	1.651	1.377	.765	2.730
2.000	.300	1.000	.624	5.779	1.475	.255	1.730	1.201	1.862	1.349	.716	2.554
2.000	.400	1.000	.676	4.917	1.187	.241	1.428	1.144	2.050	1.328	.677	2.416
2.000	.500	1.000	.736	4.404	1.017	.231	1.248	1.091	2.208	1.312	.648	2.311
2.000	.600	1.000	.804	4.062	.908	.224	1.132	1.049	2.329	1.300	.627	2.237
2.000	.700	1.000	.877	3.816	.835	.219	1.054	1.018	2.408	1.293	.614	2.191
2.000	.800	1.000	.955	3.623	.787	.217	1.004	1.002	2.439	1.291	.610	2.173
2.000	.900	1.000	1.036	3.451	.755	.219	.974	1.002	2.411	1.293	.614	2.189

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.552	.000	.000	.000	.000	.000	.000	2.000	2.185	5.503
2.400	.100	1.000	.560	19.083	4.180	.219	4.399	1.294	1.766	1.361	.957	2.411
2.400	.200	1.000	.585	11.201	2.255	.201	2.456	1.255	2.048	1.328	.880	2.216
2.400	.300	1.000	.624	8.636	1.613	.187	1.800	1.201	2.319	1.301	.816	2.055
2.400	.400	1.000	.676	7.382	1.294	.175	1.469	1.144	2.565	1.280	.766	1.929
2.400	.500	1.000	.736	6.642	1.106	.167	1.273	1.091	2.776	1.265	.728	1.833
2.400	.600	1.000	.804	6.155	.986	.160	1.147	1.049	2.941	1.254	.700	1.764
2.400	.700	1.000	.877	5.805	.907	.156	1.063	1.018	3.053	1.247	.683	1.720
2.400	.800	1.000	.955	5.532	.855	.155	1.009	1.002	3.103	1.244	.675	1.701
2.400	.900	1.000	1.036	5.290	.822	.155	.977	1.002	3.080	1.245	.679	1.710

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.552	.000	.000	.000	.000	.000	.000	2.000	2.629	5.058
2.800	.100	1.000	.560	25.320	4.419	.175	4.593	1.294	2.009	1.332	1.071	2.060
2.800	.200	1.000	.585	14.884	2.374	.160	2.534	1.255	2.332	1.300	.979	1.883
2.800	.300	1.000	.624	11.500	1.693	.147	1.840	1.201	2.647	1.274	.903	1.738
2.800	.400	1.000	.676	9.853	1.355	.138	1.493	1.144	2.935	1.254	.844	1.623
2.800	.500	1.000	.736	8.887	1.157	.130	1.287	1.091	3.183	1.239	.799	1.536
2.800	.600	1.000	.804	8.253	1.030	.125	1.155	1.049	3.380	1.228	.766	1.474
2.800	.700	1.000	.877	7.801	.947	.121	1.069	1.018	3.516	1.221	.745	1.433
2.800	.800	1.000	.955	7.450	.893	.120	1.013	1.002	3.582	1.218	.735	1.415
2.800	.900	1.000	1.036	7.141	.859	.120	.979	1.002	3.563	1.219	.738	1.420

CONSTANT PRESSURE HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.200	3.000	1.309	.552	.662

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.552	.000	.000	.000	.000	.000	.000	3.000	.902	11.652
1.600	.100	.873	.560	6.089	2.793	.459	3.252	1.294	1.056	1.973	.541	6.989
1.600	.200	.888	.585	3.515	1.526	.434	1.960	1.255	1.199	1.910	.514	6.643
1.600	.300	.912	.624	2.648	1.097	.414	1.512	1.201	1.319	1.863	.494	6.378
1.600	.400	.945	.676	2.196	.879	.400	1.279	1.144	1.407	1.831	.480	6.197
1.600	.500	.986	.736	1.901	.746	.392	1.138	1.091	1.459	1.813	.472	6.094
1.600	.600	1.000	.804	1.681	.656	.390	1.046	1.049	1.476	1.808	.469	6.063
1.600	.700	1.000	.877	1.506	.592	.393	.984	1.018	1.455	1.815	.472	6.102
1.600	.800	1.000	.955	1.356	.543	.400	.943	1.002	1.398	1.834	.481	6.215
1.600	.900	1.000	1.036	1.215	.502	.413	.915	1.002	1.300	1.870	.497	6.419

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.552	.000	.000	.000	.000	.000	.000	3.000	1.375	11.179
2.000	.100	1.000	.560	12.173	3.597	.296	3.893	1.294	1.656	1.753	.677	5.506
2.000	.200	1.000	.585	7.064	1.949	.276	2.224	1.255	1.898	1.690	.632	5.139
2.000	.300	1.000	.624	5.362	1.396	.260	1.656	1.201	2.116	1.642	.596	4.850
2.000	.400	1.000	.676	4.494	1.118	.249	1.367	1.144	2.295	1.607	.570	4.636
2.000	.500	1.000	.736	3.948	.952	.241	1.193	1.091	2.424	1.584	.553	4.493
2.000	.600	1.000	.804	3.555	.843	.237	1.080	1.049	2.496	1.572	.543	4.417
2.000	.700	1.000	.877	3.241	.767	.237	1.003	1.018	2.505	1.571	.542	4.408
2.000	.800	1.000	.955	2.966	.712	.240	.952	1.002	2.445	1.581	.550	4.471
2.000	.900	1.000	1.036	2.698	.669	.248	.917	1.002	2.309	1.604	.568	4.620

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.552	.000	.000	.000	.000	.000	.000	3.000	1.784	10.770
2.400	.100	1.000	.560	18.171	3.999	.220	4.219	1.294	2.060	1.654	.785	4.741
2.400	.200	1.000	.585	10.588	2.155	.204	2.359	1.255	2.371	1.593	.726	4.384
2.400	.300	1.000	.624	8.083	1.539	.190	1.729	1.201	2.658	1.547	.679	4.100
2.400	.400	1.000	.676	6.820	1.231	.180	1.411	1.144	2.903	1.512	.644	3.887
2.400	.500	1.000	.736	6.036	1.048	.174	1.221	1.091	3.089	1.489	.619	3.739
2.400	.600	1.000	.804	5.477	.929	.170	1.098	1.049	3.205	1.476	.605	3.652
2.400	.700	1.000	.877	5.034	.847	.168	1.016	1.018	3.242	1.471	.600	3.625
2.400	.800	1.000	.955	4.644	.790	.170	.960	1.002	3.190	1.477	.607	3.663
2.400	.900	1.000	1.036	4.263	.747	.175	.923	1.002	3.039	1.495	.626	3.777

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.552	.000	.000	.000	.000	.000	.000	3.000	2.147	10.407
2.800	.100	1.000	.560	24.190	4.241	.175	4.416	1.294	2.351	1.597	.878	4.257
2.800	.200	1.000	.585	14.127	2.278	.161	2.439	1.255	2.711	1.539	.808	3.915
2.800	.300	1.000	.624	10.817	1.622	.150	1.772	1.201	3.049	1.494	.751	3.642
2.800	.400	1.000	.676	9.160	1.296	.141	1.437	1.144	3.342	1.461	.709	3.435
2.800	.500	1.000	.736	8.139	1.103	.135	1.238	1.091	3.570	1.438	.679	3.290
2.800	.600	1.000	.804	7.418	.978	.132	1.109	1.049	3.721	1.424	.660	3.200
2.800	.700	1.000	.877	6.848	.893	.130	1.023	1.018	3.780	1.418	.653	3.166
2.800	.800	1.000	.955	6.348	.834	.131	.965	1.002	3.738	1.422	.658	3.190
2.800	.900	1.000	1.036	5.859	.792	.135	.927	1.002	3.581	1.437	.677	3.283

CONSTANT PRESSURE HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.200	4.000	1.309	.552	.662

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.552	.000	.000	.000	.000	.000	.000	4.000	.781	15.527
1.600	.100	.873	.560	5.714	2.632	.461	3.092	1.294	1.144	2.399	.471	9.351
1.600	.200	.888	.585	3.261	1.430	.438	1.868	1.255	1.284	2.313	.450	8.939
1.600	.300	.912	.624	2.421	1.021	.422	1.442	1.201	1.392	2.254	.435	8.648
1.600	.400	.945	.676	1.969	.810	.411	1.221	1.144	1.457	2.221	.427	8.482
1.600	.500	.986	.736	1.664	.678	.408	1.086	1.091	1.475	2.212	.424	8.435
1.600	.600	1.000	.804	1.431	.587	.411	.998	1.049	1.450	2.225	.428	8.499
1.600	.700	1.000	.377	1.240	.519	.419	.938	1.018	1.384	2.259	.436	8.669
1.600	.800	1.000	.955	1.076	.465	.432	.897	1.002	1.281	2.315	.450	8.949
1.600	.900	1.000	1.036	.927	.418	.452	.870	1.002	1.144	2.399	.470	9.350

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.552	.000	.000	.000	.000	.000	.000	4.000	1.191	15.118
2.000	.100	1.000	.560	11.536	3.424	.297	3.721	1.294	1.812	2.067	.589	7.479
2.000	.200	1.000	.585	6.636	1.850	.279	2.129	1.255	2.059	1.981	.553	7.023
2.000	.300	1.000	.624	4.978	1.320	.265	1.585	1.201	2.269	1.918	.526	6.680
2.000	.400	1.000	.676	4.108	1.051	.256	1.307	1.144	2.423	1.876	.508	6.449
2.000	.500	1.000	.736	3.539	.888	.251	1.140	1.091	2.509	1.855	.498	6.326
2.000	.600	1.000	.804	3.110	.779	.250	1.029	1.049	2.522	1.852	.497	6.309
2.000	.700	1.000	.877	2.753	.699	.254	.953	1.018	2.457	1.868	.504	6.399
2.000	.800	1.000	.955	2.432	.638	.262	.900	1.002	2.315	1.905	.520	6.609
2.000	.900	1.000	1.036	2.122	.586	.276	.862	1.002	2.096	1.969	.548	6.959

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.552	.000	.000	.000	.000	.000	.000	4.000	1.545	14.764
2.400	.100	1.000	.560	17.308	3.826	.221	4.047	1.294	2.266	1.919	.683	6.527
2.400	.200	1.000	.585	10.011	2.059	.206	2.265	1.255	2.588	1.836	.636	6.073
2.400	.300	1.000	.624	7.564	1.466	.194	1.660	1.201	2.873	1.775	.599	5.724
2.400	.400	1.000	.676	6.297	1.168	.186	1.354	1.144	3.095	1.733	.573	5.478
2.400	.500	1.000	.736	5.478	.989	.181	1.170	1.091	3.237	1.708	.558	5.332
2.400	.600	1.000	.804	4.866	.870	.179	1.049	1.049	3.288	1.700	.553	5.282
2.400	.700	1.000	.877	4.354	.786	.181	.967	1.018	3.238	1.708	.558	5.331
2.400	.800	1.000	.955	3.886	.723	.186	.909	1.002	3.083	1.735	.575	5.491
2.400	.900	1.000	1.036	3.426	.671	.196	.867	1.002	2.820	1.785	.605	5.784

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.552	.000	.000	.000	.000	.000	.000	4.000	1.859	14.449
2.800	.100	1.000	.560	23.113	4.070	.176	4.246	1.294	2.593	1.835	.764	5.937
2.800	.200	1.000	.585	13.408	2.184	.163	2.347	1.255	2.971	1.755	.707	5.492
2.800	.300	1.000	.624	10.172	1.553	.153	1.706	1.201	3.311	1.696	.662	5.148
2.800	.400	1.000	.676	8.509	1.237	.145	1.382	1.144	3.584	1.654	.631	4.901
2.800	.500	1.000	.736	7.444	1.048	.141	1.189	1.091	3.770	1.629	.611	4.747
2.800	.600	1.000	.804	6.651	.924	.139	1.062	1.049	3.852	1.618	.602	4.682
2.800	.700	1.000	.877	5.990	.837	.140	.976	1.018	3.818	1.623	.606	4.709
2.800	.800	1.000	.955	5.383	.772	.143	.916	1.002	3.660	1.644	.622	4.837
2.800	.900	1.000	1.036	4.779	.721	.151	.872	1.002	3.372	1.686	.655	5.090

CONSTANT PRESSURE HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.200	5.000	1.309	.552	.662

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.552	.000	.000	.000	.000	.000	.000	5.000	.699	18.750
1.600	.100	.873	.560	5.387	2.490	.462	2.952	1.294	1.206	2.813	.422	11.332
1.600	.200	.888	.585	3.043	1.345	.442	1.788	1.255	1.340	2.710	.406	10.886
1.600	.300	.912	.624	2.228	.954	.428	1.382	1.201	1.432	2.645	.395	10.600
1.600	.400	.945	.676	1.782	.749	.421	1.170	1.144	1.474	2.617	.390	10.477
1.600	.500	.986	.736	1.475	.620	.421	1.041	1.091	1.462	2.625	.392	10.511
1.600	.600	1.000	.804	1.238	.529	.428	.957	1.049	1.403	2.665	.398	10.689
1.600	.700	1.000	.877	1.046	.460	.440	.900	1.018	1.304	2.736	.410	11.000
1.600	.800	1.000	.955	.883	.404	.458	.862	1.002	1.175	2.839	.426	11.440
1.600	.900	1.000	1.036	.741	.356	.480	.836	1.002	1.023	2.977	.448	12.011

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.552	.000	.000	.000	.000	.000	.000	5.000	1.065	18.384
2.000	.100	1.000	.560	10.969	3.269	.298	3.567	1.294	1.926	2.367	.529	9.131
2.000	.200	1.000	.585	6.258	1.761	.281	2.042	1.255	2.171	2.261	.499	8.621
2.000	.300	1.000	.624	4.643	1.251	.269	1.521	1.201	2.365	2.189	.478	8.257
2.000	.400	1.000	.676	3.776	.991	.262	1.253	1.144	2.490	2.146	.466	8.041
2.000	.500	1.000	.736	3.194	.831	.260	1.091	1.091	2.532	2.132	.462	7.970
2.000	.600	1.000	.804	2.746	.721	.262	.983	1.049	2.489	2.146	.466	8.042
2.000	.700	1.000	.877	2.368	.638	.270	.908	1.018	2.362	2.190	.479	8.262
2.000	.800	1.000	.955	2.029	.572	.282	.855	1.002	2.160	2.266	.501	8.643
2.000	.900	1.000	1.036	1.715	.515	.300	.815	1.002	1.895	2.382	.533	9.202

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.552	.000	.000	.000	.000	.000	.000	5.000	1.382	18.067
2.400	.100	1.000	.560	16.533	3.670	.222	3.892	1.294	2.420	2.170	.613	8.020
2.400	.200	1.000	.585	9.494	1.971	.208	2.179	1.255	2.744	2.068	.574	7.502
2.400	.300	1.000	.624	7.104	1.400	.197	1.597	1.201	3.016	1.996	.545	7.120
2.400	.400	1.000	.676	5.838	1.111	.190	1.301	1.144	3.208	1.951	.526	6.874
2.400	.500	1.000	.736	4.996	.935	.187	1.122	1.091	3.301	1.930	.517	6.761
2.400	.600	1.000	.804	4.348	.816	.188	1.004	1.049	3.284	1.934	.519	6.781
2.400	.700	1.000	.877	3.795	.729	.192	.921	1.018	3.155	1.963	.531	6.940
2.400	.800	1.000	.955	3.288	.660	.201	.861	1.002	2.916	2.021	.555	7.256
2.400	.900	1.000	1.036	2.802	.601	.215	.816	1.002	2.579	2.118	.593	7.757

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.552	.000	.000	.000	.000	.000	.000	5.000	1.663	17.786
2.800	.100	1.000	.560	22.141	3.914	.177	4.091	1.294	2.778	2.059	.686	7.337
2.800	.200	1.000	.585	12.760	2.098	.164	2.263	1.255	3.161	1.961	.638	6.824
2.800	.300	1.000	.624	9.594	1.489	.155	1.644	1.201	3.491	1.891	.602	6.440
2.800	.400	1.000	.676	7.931	1.182	.149	1.331	1.144	3.735	1.845	.578	6.184
2.800	.500	1.000	.736	6.833	.996	.146	1.142	1.091	3.870	1.821	.566	6.052
2.800	.600	1.000	.804	5.990	.872	.146	1.018	1.049	3.879	1.820	.565	6.043
2.800	.700	1.000	.877	5.268	.783	.149	.931	1.018	3.754	1.841	.576	6.165
2.800	.800	1.000	.955	4.599	.713	.155	.868	1.002	3.496	1.890	.602	6.435
2.800	.900	1.000	1.036	3.946	.655	.166	.820	1.002	3.113	1.972	.644	6.884

CONSTANT PRESSURE HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.300	1.000	1.162	.658	.856

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.658	.000	.000	.000	.000	.000	.000	1.000	1.310	-1.310
1.600	.100	.873	.665	3.676	2.226	.606	2.832	1.154	.368	1.000	.958	-.958
1.600	.200	.888	.686	2.115	1.232	.582	1.814	1.134	.416	1.000	.925	-.925
1.600	.300	.912	.719	1.608	.902	.561	1.463	1.105	.462	1.000	.896	-.896
1.600	.400	.945	.763	1.362	.738	.542	1.281	1.073	.504	1.000	.871	-.871
1.600	.500	.986	.316	1.219	.643	.528	1.171	1.043	.540	1.000	.850	-.850
1.600	.600	1.000	.876	1.128	.583	.517	1.100	1.019	.572	1.000	.833	-.833
1.600	.700	1.000	.942	1.072	.545	.509	1.054	1.004	.598	1.000	.820	-.820
1.600	.800	1.000	1.013	1.035	.520	.503	1.023	1.000	.616	1.000	.811	-.811
1.600	.900	1.000	1.088	1.006	.504	.501	1.005	1.009	.621	1.000	.808	-.808

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.658	.000	.000	.000	.000	.000	.000	1.000	1.996	-1.996
2.000	.100	1.000	.665	8.489	3.310	.390	3.700	1.154	.667	1.000	1.198	-1.198
2.000	.200	1.000	.686	4.882	1.806	.370	2.176	1.134	.757	1.000	1.136	-1.136
2.000	.300	1.000	.719	3.711	1.307	.352	1.659	1.105	.845	1.000	1.082	-1.082
2.000	.400	1.000	.763	3.146	1.061	.337	1.398	1.073	.928	1.000	1.036	-1.036
2.000	.500	1.000	.816	2.825	.917	.325	1.242	1.043	1.002	1.000	.997	-.997
2.000	.600	1.000	.876	2.627	.827	.315	1.142	1.019	1.065	1.000	.967	-.967
2.000	.700	1.000	.942	2.500	.768	.307	1.075	1.004	1.115	1.000	.944	-.944
2.000	.800	1.000	1.013	2.414	.730	.302	1.033	1.000	1.149	1.000	.929	-.929
2.000	.900	1.000	1.088	2.350	.707	.301	1.008	1.009	1.161	1.000	.924	-.924

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.658	.000	.000	.000	.000	.000	.000	1.000	2.590	-2.590
2.400	.100	1.000	.665	13.214	3.838	.290	4.129	1.154	.865	1.000	1.389	-1.389
2.400	.200	1.000	.686	7.611	2.078	.273	2.351	1.134	.984	1.000	1.306	-1.306
2.400	.300	1.000	.719	5.797	1.495	.258	1.753	1.105	1.101	1.000	1.233	-1.233
2.400	.400	1.000	.763	4.925	1.207	.245	1.452	1.073	1.210	1.000	1.172	-1.172
2.400	.500	1.000	.816	4.431	1.039	.235	1.274	1.043	1.309	1.000	1.122	-1.122
2.400	.600	1.000	.876	4.126	.934	.226	1.160	1.019	1.394	1.000	1.082	-1.082
2.400	.700	1.000	.942	3.928	.865	.220	1.085	1.004	1.460	1.000	1.053	-1.053
2.400	.800	1.000	1.013	3.794	.820	.216	1.037	1.000	1.505	1.000	1.034	-1.034
2.400	.900	1.000	1.088	3.694	.794	.215	1.009	1.009	1.521	1.000	1.028	-1.028

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.658	.000	.000	.000	.000	.000	.000	1.000	3.117	-3.117
2.800	.100	1.000	.665	17.939	4.151	.231	4.382	1.154	1.006	1.000	1.554	-1.554
2.800	.200	1.000	.686	10.340	2.237	.216	2.454	1.134	1.146	1.000	1.453	-1.453
2.800	.300	1.000	.719	7.882	1.603	.203	1.807	1.105	1.283	1.000	1.366	-1.366
2.800	.400	1.000	.763	6.705	1.290	.192	1.483	1.073	1.412	1.000	1.292	-1.292
2.800	.500	1.000	.816	6.037	1.108	.184	1.292	1.043	1.529	1.000	1.233	-1.233
2.800	.600	1.000	.876	5.624	.993	.177	1.170	1.019	1.629	1.000	1.186	-1.186
2.800	.700	1.000	.942	5.356	.919	.172	1.090	1.004	1.707	1.000	1.152	-1.152
2.800	.800	1.000	1.013	5.174	.871	.168	1.039	1.000	1.759	1.000	1.130	-1.130
2.800	.900	1.000	1.088	5.039	.842	.167	1.009	1.009	1.778	1.000	1.122	-1.122

CONSTANT PRESSURE HEATED JETPUMP

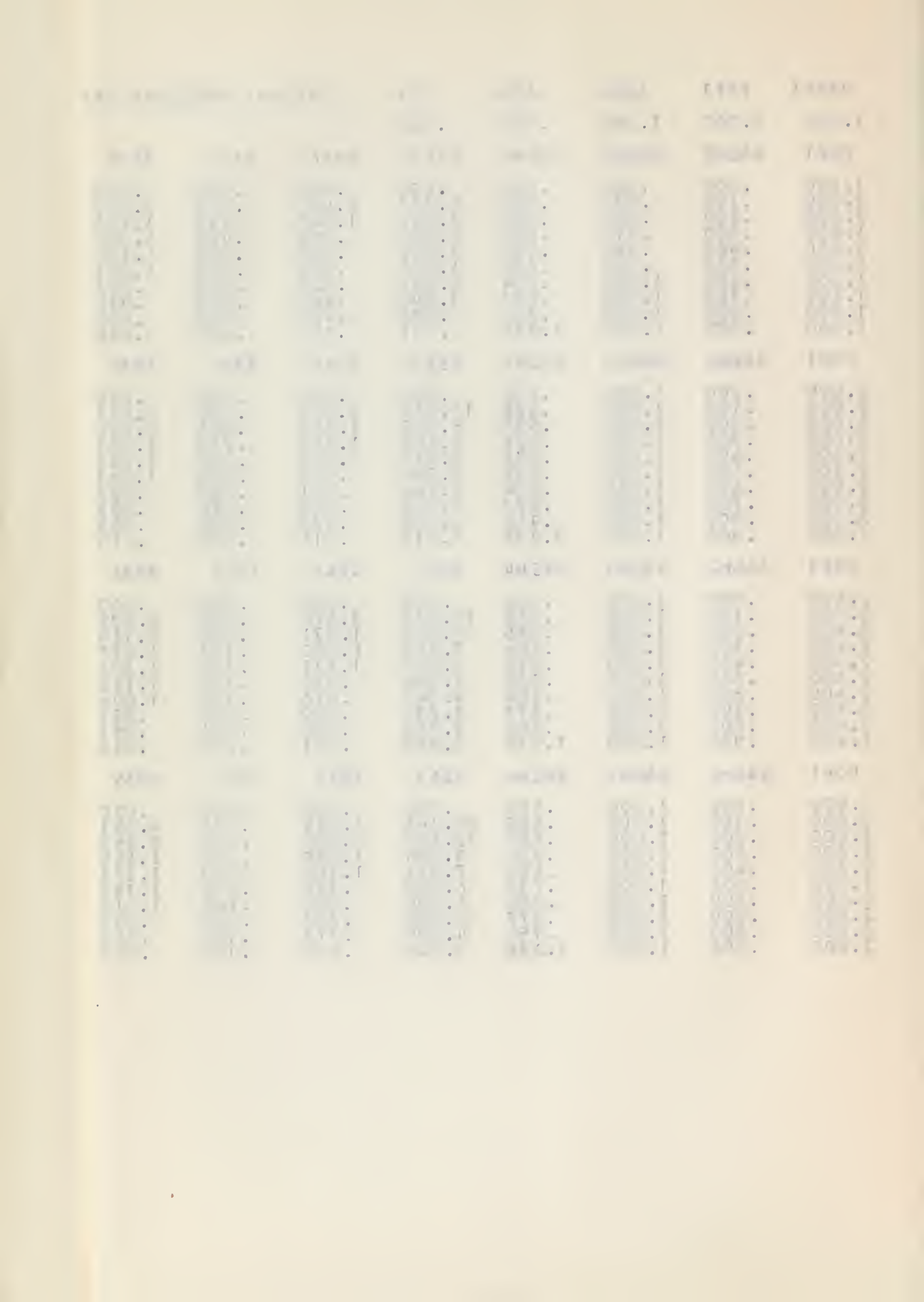
PT5P1	TOT1	A5A6	SACH5	CMA
1.300	2.000	1.162	.658	.856

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.658	.000	.000	.000	.000	.000	.000	2.000	.926	5.519
1.600	.100	.873	.665	3.493	2.119	.607	2.726	1.154	.494	1.669	.678	4.042
1.600	.200	.888	.686	1.993	1.167	.585	1.752	1.134	.555	1.643	.657	3.916
1.600	.300	.912	.719	1.499	.848	.566	1.414	1.105	.610	1.621	.639	3.808
1.600	.400	.945	.763	1.253	.689	.550	1.239	1.073	.656	1.604	.625	3.722
1.600	.500	.986	.816	1.103	.594	.539	1.133	1.043	.692	1.591	.614	3.657
1.600	.600	1.000	.876	1.001	.533	.532	1.064	1.019	.718	1.582	.606	3.612
1.600	.700	1.000	.942	.928	.490	.528	1.018	1.004	.732	1.577	.602	3.588
1.600	.800	1.000	1.013	.871	.460	.528	.988	1.000	.733	1.577	.602	3.587
1.600	.900	1.000	1.088	.817	.435	.533	.968	1.009	.714	1.584	.607	3.619

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.658	.000	.000	.000	.000	.000	.000	2.000	1.412	5.034
2.000	.100	1.000	.665	8.137	3.181	.391	3.572	1.154	.904	1.525	.849	3.028
2.000	.200	1.000	.686	4.653	1.731	.372	2.103	1.134	1.021	1.495	.808	2.881
2.000	.300	1.000	.719	3.509	1.249	.356	1.605	1.105	1.131	1.469	.773	2.756
2.000	.400	1.000	.763	2.947	1.010	.343	1.352	1.073	1.229	1.449	.744	2.654
2.000	.500	1.000	.816	2.614	.869	.332	1.201	1.043	1.311	1.433	.722	2.574
2.000	.600	1.000	.876	2.395	.778	.325	1.103	1.019	1.373	1.421	.706	2.516
2.000	.700	1.000	.942	2.237	.717	.320	1.037	1.004	1.412	1.415	.696	2.482
2.000	.800	1.000	1.013	2.113	.675	.319	.994	1.000	1.422	1.413	.693	2.472
2.000	.900	1.000	1.088	2.001	.644	.322	.966	1.009	1.398	1.417	.699	2.494

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.658	.000	.000	.000	.000	.000	.000	2.000	1.832	4.613
2.400	.100	1.000	.665	12.722	3.705	.291	3.996	1.154	1.178	1.459	.985	2.480
2.400	.200	1.000	.686	7.292	2.003	.275	2.278	1.134	1.333	1.429	.929	2.340
2.400	.300	1.000	.719	5.518	1.438	.261	1.699	1.105	1.482	1.403	.881	2.220
2.400	.400	1.000	.763	4.651	1.158	.249	1.407	1.073	1.616	1.382	.842	2.121
2.400	.500	1.000	.816	4.141	.994	.240	1.234	1.043	1.730	1.366	.812	2.044
2.400	.600	1.000	.876	3.807	.889	.233	1.122	1.019	1.819	1.355	.789	1.988
2.400	.700	1.000	.942	3.569	.819	.229	1.048	1.004	1.877	1.348	.776	1.954
2.400	.800	1.000	1.013	3.381	.771	.228	.999	1.000	1.896	1.345	.771	1.942
2.400	.900	1.000	1.088	3.213	.738	.230	.968	1.009	1.871	1.348	.777	1.957

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.658	.000	.000	.000	.000	.000	.000	2.000	2.204	4.241
2.800	.100	1.000	.665	17.317	4.018	.232	4.250	1.154	1.374	1.421	1.102	2.119
2.800	.200	1.000	.686	9.938	2.163	.218	2.381	1.134	1.557	1.391	1.034	1.988
2.800	.300	1.000	.719	7.533	1.548	.206	1.754	1.105	1.734	1.366	.976	1.877
2.800	.400	1.000	.763	6.360	1.244	.196	1.439	1.073	1.895	1.345	.928	1.786
2.800	.500	1.000	.816	5.675	1.066	.188	1.253	1.043	2.032	1.330	.891	1.715
2.800	.600	1.000	.876	5.227	.952	.182	1.134	1.019	2.140	1.318	.865	1.663
2.800	.700	1.000	.942	4.908	.876	.179	1.055	1.004	2.212	1.311	.848	1.631
2.800	.800	1.000	1.013	4.658	.825	.177	1.002	1.000	2.239	1.309	.841	1.618
2.800	.900	1.000	1.088	4.437	.792	.178	.970	1.009	2.214	1.311	.847	1.630



CONSTANT PRESSURE HEATED JETPUMP

PT5P1	T0T1	A5A6	SACH5	CMA
1.300	3.000	1.162	.658	.856

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.658	.000	.000	.000	.000	.000	.000	3.000	.756	9.769
1.600	.100	.873	.665	3.237	1.970	.609	2.579	1.154	.561	2.281	.556	7.175
1.600	.200	.888	.686	1.826	1.076	.589	1.665	1.134	.623	2.232	.540	6.978
1.600	.300	.912	.719	1.353	.775	.573	1.348	1.105	.674	2.195	.528	6.824
1.600	.400	.945	.763	1.110	.622	.561	1.182	1.073	.711	2.169	.520	6.715
1.600	.500	.986	.816	.955	.528	.553	1.082	1.043	.733	2.154	.515	6.652
1.600	.600	1.000	.876	.843	.465	.552	1.017	1.019	.740	2.150	.514	6.633
1.600	.700	1.000	.942	.756	.419	.554	.973	1.004	.731	2.156	.516	6.658
1.600	.800	1.000	1.013	.683	.383	.560	.943	1.000	.704	2.174	.521	6.734
1.600	.900	1.000	1.088	.614	.351	.572	.923	1.009	.657	2.207	.532	6.873

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.658	.000	.000	.000	.000	.000	.000	3.000	1.153	9.372
2.000	.100	1.000	.665	7.635	2.996	.392	3.388	1.154	1.039	1.981	.696	5.657
2.000	.200	1.000	.686	4.327	1.624	.375	1.999	1.134	1.163	1.925	.665	5.410
2.000	.300	1.000	.719	3.226	1.165	.361	1.527	1.105	1.273	1.880	.641	5.209
2.000	.400	1.000	.763	2.669	.936	.351	1.236	1.073	1.363	1.846	.622	5.055
2.000	.500	1.000	.816	2.325	.798	.343	1.142	1.043	1.428	1.824	.609	4.951
2.000	.600	1.000	.876	2.083	.707	.340	1.047	1.019	1.462	1.812	.602	4.897
2.000	.700	1.000	.942	1.894	.643	.340	.982	1.004	1.463	1.812	.602	4.896
2.000	.800	1.000	1.013	1.730	.594	.344	.938	1.000	1.426	1.824	.609	4.953
2.000	.900	1.000	1.088	1.574	.555	.353	.907	1.009	1.347	1.852	.625	5.083

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.658	.000	.000	.000	.000	.000	.000	3.000	1.496	9.029
2.400	.100	1.000	.665	12.012	3.511	.292	3.804	1.154	1.362	1.847	.807	4.873
2.400	.200	1.000	.686	6.833	1.894	.277	2.171	1.134	1.530	1.790	.765	4.619
2.400	.300	1.000	.719	5.120	1.355	.265	1.619	1.105	1.684	1.745	.731	4.411
2.400	.400	1.000	.763	4.261	1.086	.255	1.341	1.073	1.814	1.711	.704	4.250
2.400	.500	1.000	.816	3.735	.927	.248	1.175	1.043	1.911	1.687	.685	4.136
2.400	.600	1.000	.876	3.366	.822	.244	1.066	1.019	1.970	1.673	.674	4.071
2.400	.700	1.000	.942	3.080	.749	.243	.993	1.004	1.984	1.670	.672	4.056
2.400	.800	1.000	1.013	2.833	.696	.246	.942	1.000	1.946	1.679	.679	4.097
2.400	.900	1.000	1.088	2.595	.655	.252	.907	1.009	1.850	1.702	.697	4.207

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.658	.000	.000	.000	.000	.000	.000	3.000	1.800	8.725
2.800	.100	1.000	.665	16.412	3.822	.233	4.055	1.154	1.595	1.771	.903	4.377
2.800	.200	1.000	.686	9.355	2.055	.220	2.274	1.134	1.796	1.715	.851	4.127
2.800	.300	1.000	.719	7.028	1.467	.209	1.675	1.105	1.981	1.671	.809	3.922
2.800	.400	1.000	.763	5.867	1.174	.200	1.374	1.073	2.140	1.637	.776	3.761
2.800	.500	1.000	.816	5.159	1.001	.194	1.195	1.043	2.263	1.613	.752	3.647
2.800	.600	1.000	.876	4.667	.889	.190	1.079	1.019	2.341	1.599	.738	3.578
2.800	.700	1.000	.942	4.286	.811	.189	1.000	1.004	2.366	1.594	.734	3.556
2.800	.800	1.000	1.013	3.957	.755	.191	.946	1.000	2.330	1.601	.740	3.587
2.800	.900	1.000	1.088	3.641	.713	.196	.909	1.009	2.225	1.620	.759	3.681

CONSTANT PRESSURE HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.300	4.000	1.162	.658	.856

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.658	.000	.000	.000	.000	.000	.000	4.000	.655	13.017
1.600	.100	.873	.665	3.010	1.836	.610	2.447	1.154	.603	2.872	.482	9.585
1.600	.200	.888	.686	1.680	.996	.593	1.589	1.134	.661	2.806	.471	9.355
1.600	.300	.912	.719	1.227	.711	.579	1.290	1.105	.706	2.759	.462	9.189
1.600	.400	.945	.763	.990	.564	.570	1.133	1.073	.732	2.732	.458	9.093
1.600	.500	.986	.816	.835	.472	.566	1.038	1.043	.740	2.724	.456	9.066
1.600	.600	1.000	.876	.720	.409	.568	.977	1.019	.729	2.735	.458	9.103
1.600	.700	1.000	.942	.629	.361	.574	.936	1.004	.702	2.763	.463	9.204
1.600	.800	1.000	1.013	.552	.323	.585	.908	1.000	.657	2.810	.472	9.371
1.600	.900	1.000	1.088	.482	.289	.600	.889	1.009	.595	2.881	.484	9.618

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.658	.000	.000	.000	.000	.000	.000	4.000	.998	12.674
2.000	.100	1.000	.665	7.175	2.825	.394	3.218	1.154	1.127	2.410	.604	7.676
2.000	.200	1.000	.686	4.031	1.525	.378	1.903	1.134	1.251	2.333	.581	7.373
2.000	.300	1.000	.719	2.972	1.088	.366	1.454	1.105	1.354	2.274	.562	7.139
2.000	.400	1.000	.763	2.424	.868	.358	1.226	1.073	1.430	2.235	.550	6.979
2.000	.500	1.000	.816	2.075	.734	.354	1.087	1.043	1.471	2.214	.543	6.893
2.000	.600	1.000	.876	1.820	.643	.353	.996	1.019	1.476	2.212	.542	6.885
2.000	.700	1.000	.942	1.614	.576	.357	.933	1.004	1.440	2.229	.548	6.957
2.000	.800	1.000	1.013	1.432	.523	.365	.838	1.000	1.363	2.269	.561	7.120
2.000	.900	1.000	1.088	1.260	.477	.379	.856	1.009	1.245	2.336	.582	7.387

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.658	.000	.000	.000	.000	.000	.000	4.000	1.295	12.377
2.400	.100	1.000	.665	11.353	3.330	.293	3.624	1.154	1.486	2.207	.701	6.703
2.400	.200	1.000	.686	6.410	1.791	.279	2.070	1.134	1.657	2.129	.668	6.384
2.400	.300	1.000	.719	4.756	1.276	.268	1.545	1.105	1.806	2.069	.642	6.133
2.400	.400	1.000	.763	3.908	1.018	.261	1.279	1.073	1.921	2.027	.623	5.953
2.400	.500	1.000	.816	3.372	.863	.256	1.118	1.043	1.993	2.002	.612	5.845
2.400	.600	1.000	.876	2.982	.759	.254	1.013	1.019	2.015	1.995	.608	5.813
2.400	.700	1.000	.942	2.665	.684	.257	.940	1.004	1.982	2.006	.613	5.862
2.400	.800	1.000	1.013	2.383	.626	.263	.888	1.000	1.890	2.038	.628	6.000
2.400	.900	1.000	1.088	2.111	.577	.273	.850	1.009	1.738	2.096	.653	6.245

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.658	.000	.000	.000	.000	.000	.000	4.000	1.559	12.113
2.800	.100	1.000	.665	15.566	3.638	.234	3.872	1.154	1.747	2.092	.785	6.098
2.800	.200	1.000	.686	8.813	1.952	.221	2.173	1.134	1.953	2.016	.744	5.778
2.800	.300	1.000	.719	6.561	1.389	.212	1.601	1.105	2.136	1.957	.711	5.524
2.800	.400	1.000	.763	5.414	1.108	.205	1.312	1.073	2.281	1.914	.687	5.337
2.800	.500	1.000	.816	4.692	.939	.200	1.139	1.043	2.377	1.888	.672	5.221
2.800	.600	1.000	.876	4.169	.827	.198	1.026	1.019	2.415	1.879	.666	5.177
2.800	.700	1.000	.942	3.745	.748	.200	.947	1.004	2.387	1.886	.670	5.209
2.800	.800	1.000	1.013	3.365	.687	.204	.891	1.000	2.288	1.912	.686	5.328
2.800	.900	1.000	1.088	2.997	.638	.213	.850	1.009	2.115	1.963	.714	5.551

CONSTANT PRESSURE HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.300	5.000	1.162	.658	.856

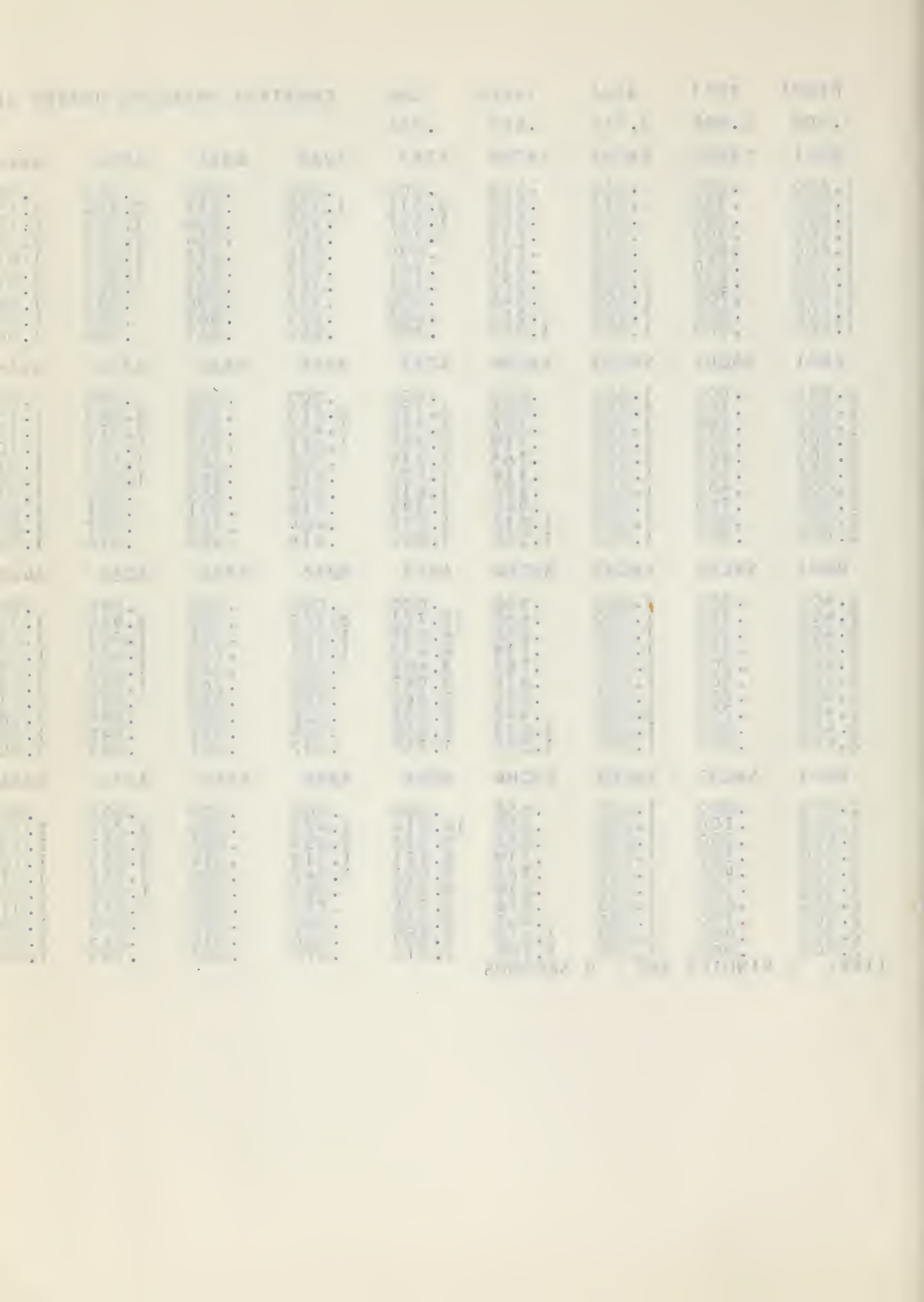
POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.658	.000	.000	.000	.000	.000	.000	5.000	.586	15.719
1.600	.100	.873	.665	2.817	1.722	.611	2.334	1.154	.631	3.453	.432	11.600
1.600	.200	.888	.686	1.557	.928	.596	1.524	1.134	.685	3.373	.423	11.355
1.600	.300	.912	.719	1.124	.657	.584	1.241	1.105	.723	3.322	.417	11.195
1.600	.400	.945	.763	.894	.516	.577	1.093	1.073	.739	3.300	.415	11.125
1.600	.500	.986	.816	.741	.427	.576	1.003	1.043	.735	3.306	.415	11.145
1.600	.600	1.000	.876	.627	.365	.581	.946	1.019	.711	3.338	.419	11.245
1.600	.700	1.000	.942	.538	.317	.590	.908	1.004	.671	3.394	.426	11.420
1.600	.800	1.000	1.013	.463	.279	.603	.882	1.000	.615	3.476	.435	11.671
1.600	.900	1.000	1.088	.395	.245	.621	.866	1.009	.546	3.588	.447	12.005

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.658	.000	.000	.000	.000	.000	.000	5.000	.893	15.412
2.000	.100	1.000	.665	6.775	2.675	.395	3.069	1.154	1.190	2.827	.542	9.361
2.000	.200	1.000	.686	3.776	1.438	.381	1.818	1.134	1.310	2.732	.523	9.027
2.000	.300	1.000	.719	2.755	1.021	.370	1.391	1.105	1.404	2.664	.509	8.784
2.000	.400	1.000	.763	2.219	.808	.364	1.173	1.073	1.463	2.624	.500	8.637
2.000	.500	1.000	.316	1.870	.678	.362	1.040	1.043	1.483	2.611	.498	8.591
2.000	.600	1.000	.376	1.610	.587	.365	.952	1.019	1.460	2.626	.501	8.645
2.000	.700	1.000	.942	1.398	.519	.371	.891	1.004	1.395	2.670	.510	8.805
2.000	.800	1.000	1.013	1.213	.464	.383	.847	1.000	1.291	2.746	.526	9.078
2.000	.900	1.000	1.088	1.042	.416	.400	.816	1.009	1.151	2.860	.549	9.475

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.658	.000	.000	.000	.000	.000	.000	5.000	1.158	15.147
2.400	.100	1.000	.665	10.771	3.169	.294	3.464	1.154	1.576	2.553	.629	8.228
2.400	.200	1.000	.686	6.039	1.700	.281	1.981	1.134	1.746	2.457	.602	7.870
2.400	.300	1.000	.719	4.439	1.207	.272	1.478	1.105	1.885	2.387	.581	7.600
2.400	.400	1.000	.763	3.606	.957	.265	1.223	1.073	1.981	2.342	.568	7.424
2.400	.500	1.000	.816	3.067	.806	.263	1.068	1.043	2.026	2.322	.562	7.345
2.400	.600	1.000	.876	2.665	.702	.263	.966	1.019	2.013	2.328	.564	7.368
2.400	.700	1.000	.942	2.333	.626	.268	.894	1.004	1.940	2.361	.574	7.498
2.400	.800	1.000	1.013	2.038	.565	.277	.842	1.000	1.807	2.425	.593	7.748
2.400	.900	1.000	1.088	1.759	.512	.291	.803	1.009	1.619	2.527	.622	8.134

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	A236	A4A6	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.658	.000	.000	.000	.000	.000	.000	5.000	1.394	14.911
2.800	.100	1.000	.665	14.814	3.473	.234	3.708	1.154	1.858	2.399	.704	7.530
2.800	.200	1.000	.686	8.333	1.859	.223	2.082	1.134	2.065	2.305	.670	7.166
2.800	.300	1.000	.719	6.151	1.319	.214	1.533	1.105	2.238	2.235	.644	6.886
2.800	.400	1.000	.763	5.021	1.047	.209	1.256	1.073	2.365	2.189	.626	6.698
2.800	.500	1.000	.316	4.293	.883	.206	1.088	1.043	2.431	2.166	.617	6.603
2.800	.600	1.000	.876	3.751	.772	.206	.977	1.019	2.429	2.167	.618	6.606
2.800	.700	1.000	.942	3.302	.690	.209	.899	1.004	2.353	2.193	.628	6.714
2.800	.800	1.000	1.013	2.899	.626	.216	.843	1.000	2.204	2.249	.649	6.941
2.800	.900	1.000	1.088	2.514	.572	.227	.799	1.009	1.983	2.341	.683	7.305

TIME, 0 MINUTES AND 0 SECONDS



```
..JOB BELTER TWO MINUTES MAX
      PROGRAM JETPUMP
C     CONSTANT AREA HEATED JETPUMP, ITERATIVE SOLUTION
      READ  5,XPT5P1,XTOT1,XPOP1,XSACH2,GAMMA
    5 FORMAT(5F10.0)
      G=GAMMA
      CA=(G-1.)/(G+1.)
      CB=G/(G-1.)
      CD=(G-1.)/G
      CE=(G+1.)/(G-1.)
      CG=2./(G+1.)
      CH=2.*G/(G+1.)
      CJ=1./(G-1.)
      CK=1./G
      CN=(G+1.)/(2.*G)
      PT5P1=XPT5P1
      DO20 J=1,3
      XJ=J
      PR = PT5P1
      TOT1=XTOT1
      SACH5= (CE*(1.-(1./PT5P1)**CD))**.5
      A5A6=((CG/(1.-CA*(SACH5**2.)))**CJ)/SACH5
      CMA=PT5P1*SACH5
      DO30 K=1,5
      XK=K
      PRINT 60
  600 FORMAT(1H1,///////4X,
     1    5HPT5P1 3X,4HTOT1 4X,4HA5A6 4X,5HSACH5 4X,3HCMA
     2 4X,29HCONSTANT AREA HEATED JETPUMP    /)
      PRINT 70,PT5P1,TOT1,A5A6,SACH5,CMA
   70 FORMAT (5F8.3)
      POP1=XPOP1
      DO 40 M=1,5
      XM=M
      IF(POP1-PT5P1) 40,40,26
   26 CONTINUE
      PRINT 80
  800 FORMAT (/3X,
     1        5H POP1 3X,5HSACH2 3X,5HSACH3 3X,5HSACH4 3X,
     2 4HA2A3 4X,4HA2A6 4X,4HA3A6 4X,4HP4P1 4X,5HPT4P1 3X,
     3 4HWMWJ 4X,5HTT5T1 3X,3HCPM 5X,3HCQM /)
      P1PO =1./POP1
      T1TO =1./TOT1
      PT4P1=PT5P1
      B=TOT1**.5
      SACH2=XSACH2
      DO 50 N=1,10
      XN=N
      NUMB = 1
      A2A3 = 0.0
      P2P1= (1.-CA*(SACH2**2.))**CB
      SACH3=(CE*(1.-((P2P1*P1PO)**CD)))**.5
      P3P1=P2P1
      IF(SACH3-1.) 10,11,11
   11 SACH3=1.0
      P3P1=POP1*(CG**CB)
   10 P2P3=P2P1/P3P1
      R2R1=P2P1**CK
      T3TO=(1.-CA*SACH3*SACH3)
      R3R1=P3P1/(TOT1*T3TO)
      IF (SACH2) 12,12,13
   12 WMWJ=0.0
      SACH4=NS
      A2A3 =X
      A2A6=X
      A3A6=NS
      P4P1=NS
      PT4P1=NS
      TT5T1=TOT1
```

```
      XRAD=0
      A3A6=X
      A236=X
      A4A6=X
      GO TO 14
   13 CONTINUE
      WMWJ=A2A3*R2R1*SACH2/(R3R1*B*SACH3)
      TT4T1=(WMWJ+TOT1)/(WMWJ+1.)
      D=B*CN*(1.-P2P3)*(1.-(CA*(SACH3*SACH3)))/SACH3
      XAL=(R2R1*A2A3*SACH2 +R3R1*B*SACH3)*(TT4T1**.5)/(A2A3+1.)
      XBE=((A2A3+1.)*CN*B)/(P3P1*SACH3)
      XEP=(WMWJ*SACH2 +B*SACH3 +D +P2P1*XBE)/XBE
      XLA=((WMWJ+1.)*(TT4T1**.5))/XBE
      XRAD = XEP*XEP +(XAL*CA-XLA)*4.*XAL
   52 ARAD = ABSF (XRAD)
      SACH4 = (-XEP +(ARAD**.5))/(2.*(XAL*CA-XLA))
      P4P1=XEP-SACH4*XLA
      PT4P1 = P4P1/(1.-CA*SACH4*SACH4)**CB
   15 GO TO (1,2,3),NUMB
    1 IF (PR-PT4P1) 16,3,17
    2 IF (PR-PT4P1) 18,3,17
   16 A2A3M = A2A3
      PT4P1M = PT4P1
      A2A3 =  A2A3 + 1.0
      GO TO 13
   17 NUMB = 2
      A2A3M = A2A3
      PT4P1M = PT4P1
      A2A3 =  A2A3 - .1
      GO TO 13
   18 NUMB = 3
      A2A3 = (A2A3M*(PT4P1-PR)-A2A3*(PT4P1M-PR))/(PT4P1-PT4P1M)
      GO TO 13
    3 A5A4 = (P4P1**CK)*SACH4/SACH5
      A6A4 = (((1.-CA*(SACH4**2.))/CG)**CJ)*SACH4
      A4A3 = A2A3+1.
      A2A6 = A2A3/(A4A3*A6A4)
      A3A6 = A2A6/A2A3
      A236 = (A2A3+1.) *A3A6
      A4A6 = 1./A6A4
      TT5T1 = TT4T1
   14 CONTINUE
      CMX   = CA*(1.+WMWJ)*SACH5*TT5T1**.5
      CMP   = CMX/((POP1**CD)-1.)
      CPM   = 1./CMP
      CMQ = CMX/(TOT1-(POP1**CD))
      CQM = 1./CMQ
      IF (XRAD) 50,53,53
   53 CONTINUE
     OPRINT 90, POP1,SACH2,SACH3,SACH4,A2A3,A2A6,A3A6,
     1P4P1,PT4P1,WMWJ,TT5T1,CPM,CQM
   90 FORMAT (13F8.3)
   50 SACH2=XSACH2+.1*XN
   40 POP1=XPOP1+.4*XM
   30 TOT1 = XTOT1+1.*XK
   20 PT5P1=XPT5P1+.1*XJ
      END
      END

1.10      1.0         1.2         0.0         1.4
```

CONSTANT AREA HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.100	1.000	1.690	.401	.442

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.200	.000	.552	.000	.000	.000	.000	.000	.000	.000	1.000	.799	-.799
1.200	.100	.560	.266	1.642	1.524	.928	1.055	1.100	.278	1.000	.625	-.625
1.200	.200	.585	.352	1.399	1.107	.791	1.023	1.100	.454	1.000	.550	-.550
1.200	.300	.624	.436	1.245	.874	.702	.983	1.100	.568	1.000	.510	-.510
1.200	.400	.676	.520	1.143	.730	.638	.936	1.100	.642	1.000	.487	-.487
1.200	.500	.736	.606	1.074	.635	.591	.882	1.100	.693	1.000	.472	-.472
1.200	.600	.804	.692	1.025	.571	.557	.822	1.100	.726	1.000	.463	-.463
1.200	.700	.877	.781	.986	.527	.534	.756	1.100	.747	1.000	.457	-.457
1.200	.800	.955	.870	.952	.498	.523	.686	1.100	.757	1.000	.455	-.455
1.200	.900	1.000	.961	.929	.482	.519	.613	1.100	.765	1.000	.453	-.453

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.000	.000	.000	.000	.000	.000	.000	1.000	2.148	-2.148
1.600	.100	.873	.200	6.649	2.798	.421	1.074	1.100	.666	1.000	1.290	-1.290
1.600	.200	.888	.292	6.089	1.933	.317	1.046	1.100	1.199	1.000	.977	-.977
1.600	.300	.912	.384	5.631	1.492	.265	1.008	1.100	1.619	1.000	.820	-.820
1.600	.400	.945	.476	5.256	1.232	.234	.961	1.100	1.944	1.000	.730	-.730
1.600	.500	.986	.568	4.946	1.065	.215	.906	1.100	2.192	1.000	.673	-.673
1.600	.600	1.000	.660	4.725	.957	.203	.845	1.100	2.394	1.000	.633	-.633
1.600	.700	1.000	.752	4.586	.886	.193	.778	1.100	2.558	1.000	.604	-.604
1.600	.800	1.000	.347	4.529	.843	.186	.734	1.100	2.694	1.000	.581	-.581
1.600	.900	1.000	.950	4.627	.825	.178	.622	1.100	2.857	1.000	.557	-.557

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.000	.000	.000	.000	.000	.000	.000	1.000	3.273	-3.273
2.000	.100	1.000	.185	10.544	3.172	.301	1.078	1.100	.828	1.000	1.790	-1.790
2.000	.200	1.000	.277	9.876	2.145	.217	1.052	1.100	1.532	1.000	1.293	-1.293
2.000	.300	1.000	.369	9.324	1.641	.176	1.015	1.100	2.124	1.000	1.048	-1.048
2.000	.400	1.000	.462	8.878	1.350	.152	.969	1.100	2.618	1.000	.905	-.905
2.000	.500	1.000	.555	8.533	1.166	.137	.914	1.100	3.025	1.000	.813	-.813
2.000	.600	1.000	.649	8.283	1.045	.126	.853	1.100	3.358	1.000	.751	-.751
2.000	.700	1.000	.744	8.131	.966	.119	.784	1.100	3.628	1.000	.707	-.707
2.000	.800	1.000	.342	8.102	.918	.113	.708	1.100	3.856	1.000	.674	-.674
2.000	.900	1.000	.948	8.328	.896	.108	.623	1.100	4.114	1.000	.640	-.640

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.000	.000	.000	.000	.000	.000	.000	1.000	4.247	-4.247
2.400	.100	1.000	.176	14.565	3.418	.235	1.080	1.100	.953	1.000	2.174	-2.174
2.400	.200	1.000	.268	13.752	2.269	.165	1.054	1.100	1.778	1.000	1.529	-1.529
2.400	.300	1.000	.362	13.082	1.721	.132	1.018	1.100	2.484	1.000	1.219	-1.219
2.400	.400	1.000	.455	12.545	1.408	.112	.973	1.100	3.083	1.000	1.040	-1.040
2.400	.500	1.000	.549	12.132	1.213	.100	.918	1.100	3.585	1.000	.926	-.926
2.400	.600	1.000	.644	11.840	1.085	.092	.856	1.100	4.000	1.000	.849	-.849
2.400	.700	1.000	.741	11.675	1.002	.086	.786	1.100	4.341	1.000	.795	-.795
2.400	.800	1.000	.840	11.677	.950	.081	.710	1.100	4.631	1.000	.754	-.754
2.400	.900	1.000	.947	12.029	.926	.077	.624	1.100	4.952	1.000	.714	-.714

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.000	.000	.000	.000	.000	.000	.000	1.000	5.111	-5.111
2.800	.100	1.000	.170	18.578	3.574	.192	1.081	1.100	1.042	1.000	2.503	-2.503
2.800	.200	1.000	.263	17.624	2.345	.133	1.056	1.100	1.953	1.000	1.731	-1.731
2.800	.300	1.000	.357	16.838	1.769	.105	1.020	1.100	2.740	1.000	1.367	-1.367
2.800	.400	1.000	.451	16.209	1.443	.089	.975	1.100	3.414	1.000	1.158	-1.158
2.800	.500	1.000	.546	15.730	1.240	.079	.920	1.100	3.984	1.000	1.026	-1.026
2.800	.600	1.000	.642	15.397	1.108	.072	.858	1.100	4.459	1.000	.936	-.936
2.800	.700	1.000	.739	15.220	1.022	.067	.788	1.100	4.851	1.000	.874	-.874
2.800	.800	1.000	.339	15.251	.969	.064	.711	1.100	5.185	1.000	.826	-.826
2.800	.900	1.000	.947	15.730	.943	.060	.624	1.100	5.550	1.000	.780	-.780

CONSTANT AREA HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.100	2.000	1.690	.401	.442

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.200	.000	.552	.000	.000	.000	.000	.000	.000	.000	2.000	.565	10.002
1.200	.100	.560	.271	1.616	1.490	.922	1.054	1.100	.387	1.721	.439	7.774
1.200	.200	.585	.361	1.351	1.066	.790	1.019	1.100	.620	1.617	.388	6.868
1.200	.300	.624	.449	1.173	.830	.707	.976	1.100	.756	1.569	.363	6.429
1.200	.400	.676	.538	1.051	.683	.650	.925	1.100	.835	1.545	.350	6.201
1.200	.500	.736	.630	.964	.586	.608	.866	1.100	.879	1.532	.344	6.082
1.200	.600	.804	.725	.904	.522	.578	.798	1.100	.906	1.525	.340	6.011
1.200	.700	.877	.825	.879	.486	.552	.721	1.100	.942	1.515	.334	5.919
1.200	.800	.955	.938	.929	.484	.521	.631	1.100	1.045	1.489	.320	5.669

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.000	.000	.000	.000	.000	.000	.000	2.000	1.519	9.049
1.600	.100	.873	.204	6.604	2.747	.416	1.074	1.100	.935	1.517	.901	5.370
1.600	.200	.888	.298	6.001	1.892	.315	1.044	1.100	1.671	1.374	.686	4.087
1.600	.300	.912	.393	5.502	1.458	.265	1.004	1.100	2.237	1.309	.580	3.456
1.600	.400	.945	.488	5.090	1.202	.236	.955	1.100	2.663	1.273	.520	3.096
1.600	.500	.986	.584	4.754	1.038	.218	.896	1.100	2.981	1.251	.482	2.874
1.600	.600	1.000	.681	4.515	.932	.206	.830	1.100	3.236	1.236	.456	2.717
1.600	.700	1.000	.781	4.383	.864	.197	.756	1.100	3.457	1.224	.436	2.595
1.600	.800	1.000	.891	4.424	.827	.187	.669	1.100	3.722	1.212	.413	2.462
1.600	.900	1.000	1.036	5.216	.840	.161	.552	1.100	4.555	1.180	.356	2.121

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.000	.000	.000	.000	.000	.000	.000	2.000	2.314	8.253
2.000	.100	1.000	.188	10.492	3.117	.297	1.077	1.100	1.165	1.462	1.250	4.458
2.000	.200	1.000	.282	9.773	2.106	.215	1.050	1.100	2.144	1.318	.907	3.234
2.000	.300	1.000	.377	9.169	1.611	.176	1.012	1.100	2.954	1.253	.740	2.637
2.000	.400	1.000	.472	8.673	1.325	.153	.964	1.100	3.617	1.217	.643	2.292
2.000	.500	1.000	.568	8.281	1.144	.138	.907	1.100	4.152	1.194	.581	2.073
2.000	.600	1.000	.665	7.997	1.026	.128	.841	1.100	4.585	1.179	.540	1.925
2.000	.700	1.000	.767	7.846	.949	.121	.767	1.100	4.951	1.168	.509	1.815
2.000	.800	1.000	.877	7.935	.905	.114	.681	1.100	5.341	1.158	.480	1.711
2.000	.900	1.000	1.014	8.934	.900	.101	.570	1.100	6.241	1.138	.424	1.511

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.000	.000	.000	.000	.000	.000	.000	2.000	3.003	7.564
2.400	.100	1.000	.179	14.501	3.359	.232	1.080	1.100	1.342	1.427	1.518	3.823
2.400	.200	1.000	.273	13.626	2.230	.164	1.053	1.100	2.491	1.286	1.073	2.702
2.400	.300	1.000	.368	12.892	1.693	.131	1.016	1.100	3.462	1.224	.860	2.167
2.400	.400	1.000	.463	12.292	1.386	.113	.968	1.100	4.272	1.190	.739	1.860
2.400	.500	1.000	.560	11.821	1.193	.101	.912	1.100	4.939	1.168	.662	1.666
2.400	.600	1.000	.659	11.485	1.068	.093	.846	1.100	5.487	1.154	.609	1.535
2.400	.700	1.000	.761	11.318	.987	.087	.771	1.100	5.952	1.144	.571	1.439
2.400	.800	1.000	.870	11.456	.939	.082	.686	1.100	6.425	1.135	.537	1.352
2.400	.900	1.000	1.004	12.691	.927	.073	.578	1.100	7.388	1.119	.479	1.205

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.000	.000	.000	.000	.000	.000	.000	2.000	3.614	6.953
2.800	.100	1.000	.173	18.503	3.514	.190	1.081	1.100	1.468	1.405	1.747	3.361
2.800	.200	1.000	.268	17.474	2.307	.132	1.055	1.100	2.738	1.268	1.215	2.336
2.800	.300	1.000	.363	16.613	1.741	.105	1.018	1.100	3.823	1.207	.964	1.855
2.800	.400	1.000	.459	15.910	1.421	.089	.971	1.100	4.739	1.174	.822	1.581
2.800	.500	1.000	.556	15.361	1.222	.080	.914	1.100	5.502	1.154	.732	1.408
2.800	.600	1.000	.655	14.975	1.092	.073	.849	1.100	6.133	1.140	.671	1.291
2.800	.700	1.000	.757	14.793	1.008	.068	.774	1.100	6.668	1.130	.627	1.206
2.800	.800	1.000	.866	14.980	.958	.064	.689	1.100	7.202	1.122	.588	1.132
2.800	.900	1.000	.999	16.461	.943	.057	.582	1.100	8.214	1.109	.527	1.014

CONSTANT AREA HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.100	3.000	1.690	.401	.442

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.200	.000	.552	.000	.000	.000	.000	.000	.000	.000	3.000	.461	16.795
1.200	.100	.560	.278	1.576	1.439	.913	1.051	1.100	.462	2.368	.355	12.927
1.200	.200	.585	.375	1.276	1.006	.789	1.012	1.100	.717	2.165	.316	11.516
1.200	.300	.624	.470	1.068	.765	.716	.965	1.100	.843	2.085	.300	10.929
1.200	.400	.676	.567	.919	.614	.668	.907	1.100	.895	2.056	.294	10.709
1.200	.500	.736	.669	.813	.516	.634	.839	1.100	.908	2.048	.293	10.655
1.200	.600	.804	.780	.751	.455	.606	.756	1.100	.921	2.041	.291	10.599
1.200	.700	.877	.916	.777	.441	.567	.649	1.100	1.020	1.990	.280	10.209

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.000	.000	.000	.000	.000	.000	.000	3.000	1.240	16.017
1.600	.100	.873	.210	6.536	2.673	.409	1.072	1.100	1.133	1.938	.723	9.342
1.600	.200	.888	.308	5.866	1.831	.312	1.040	1.100	2.000	1.667	.555	7.163
1.600	.300	.912	.407	5.303	1.407	.265	.998	1.100	2.640	1.549	.474	6.123
1.600	.400	.945	.507	4.837	1.156	.239	.944	1.100	3.099	1.488	.430	5.548
1.600	.500	.986	.610	4.463	.997	.223	.879	1.100	3.427	1.452	.403	5.201
1.600	.600	1.000	.717	4.205	.894	.213	.804	1.100	3.691	1.426	.383	4.952
1.600	.700	1.000	.835	4.119	.832	.202	.714	1.100	3.979	1.402	.364	4.706
1.600	.800	1.000	.984	4.594	.822	.179	.594	1.100	4.734	1.349	.323	4.166

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.000	.000	.000	.000	.000	.000	.000	3.000	1.890	15.367
2.000	.100	1.000	.194	10.412	3.036	.292	1.076	1.100	1.416	1.828	1.002	8.147
2.000	.200	1.000	.291	9.612	2.047	.213	1.047	1.100	2.583	1.558	.732	5.952
2.000	.300	1.000	.388	8.928	1.566	.175	1.036	1.100	3.523	1.442	.603	4.900
2.000	.400	1.000	.487	8.356	1.286	.154	.955	1.100	4.268	1.380	.529	4.302
2.000	.500	1.000	.588	7.894	1.110	.141	.894	1.100	4.848	1.342	.483	3.929
2.000	.600	1.000	.694	7.565	.995	.132	.821	1.100	5.312	1.317	.452	3.674
2.000	.700	1.000	.808	7.449	.923	.124	.735	1.100	5.757	1.296	.425	3.460
2.000	.800	1.000	.945	7.947	.891	.112	.626	1.100	6.551	1.265	.385	3.134

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.000	.000	.000	.000	.000	.000	.000	3.000	2.452	14.805
2.400	.100	1.000	.184	14.403	3.274	.227	1.079	1.100	1.633	1.760	1.216	7.342
2.400	.200	1.000	.281	13.429	2.173	.162	1.050	1.100	3.007	1.499	.866	5.227
2.400	.300	1.000	.378	12.597	1.650	.131	1.011	1.100	4.143	1.389	.701	4.231
2.400	.400	1.000	.477	11.900	1.351	.114	.961	1.100	5.065	1.330	.607	3.666
2.400	.500	1.000	.578	11.341	1.163	.103	.900	1.100	5.804	1.294	.549	3.313
2.400	.600	1.000	.683	10.944	1.041	.095	.829	1.100	6.404	1.270	.509	3.073
2.400	.700	1.000	.796	10.807	.964	.089	.744	1.100	6.960	1.251	.477	2.880
2.400	.800	1.000	.928	11.374	.925	.081	.639	1.100	7.813	1.227	.435	2.627

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.000	.000	.000	.000	.000	.000	.000	3.000	2.951	14.306
2.800	.100	1.000	.178	18.388	3.426	.186	1.080	1.100	1.787	1.718	1.399	6.784
2.800	.200	1.000	.275	17.242	2.250	.131	1.052	1.100	3.309	1.464	.980	4.752
2.800	.300	1.000	.372	16.264	1.700	.105	1.014	1.100	4.585	1.358	.785	3.807
2.800	.400	1.000	.471	15.446	1.389	.090	.964	1.100	5.635	1.301	.675	3.274
2.800	.500	1.000	.572	14.791	1.194	.081	.904	1.100	6.488	1.267	.606	2.940
2.800	.600	1.000	.677	14.329	1.068	.075	.833	1.100	7.187	1.244	.560	2.713
2.800	.700	1.000	.789	14.174	.987	.070	.750	1.100	7.824	1.227	.523	2.535
2.800	.800	1.000	.919	14.825	.944	.064	.647	1.100	8.729	1.206	.478	2.320

CONSTANT AREA HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.100	4.000	1.690	.401	.442

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.200	.000	.552	.000	.000	.000	.000	.000	.000	.000	4.000	.400	22.018
1.200	.100	.560	.286	1.536	1.390	.905	1.048	1.100	.521	2.973	.305	16.796
1.200	.200	.585	.389	1.202	.948	.789	1.006	1.100	.780	2.686	.274	15.097
1.200	.300	.624	.492	.969	.703	.726	.953	1.100	.884	2.593	.263	14.519
1.200	.400	.676	.597	.800	.550	.687	.888	1.100	.900	2.579	.262	14.434
1.200	.500	.736	.710	.686	.452	.659	.809	1.100	.885	2.592	.263	14.513
1.200	.600	.804	.845	.634	.400	.630	.706	1.100	.898	2.580	.262	14.441

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.000	.000	.000	.000	.000	.000	.000	4.000	1.074	21.343
1.600	.100	.873	.215	6.466	2.601	.402	1.071	1.100	1.295	2.307	.616	12.246
1.600	.200	.888	.318	5.728	1.772	.309	1.037	1.100	2.256	1.922	.476	9.459
1.600	.300	.912	.421	5.102	1.356	.266	.990	1.100	2.933	1.763	.411	8.174
1.600	.400	.945	.528	4.582	1.110	.242	.931	1.100	3.390	1.683	.377	7.494
1.600	.500	.986	.639	4.176	.954	.229	.859	1.100	3.702	1.638	.357	7.093
1.600	.600	1.000	.760	3.917	.856	.218	.772	1.100	3.970	1.604	.341	6.783
1.600	.700	1.000	.906	3.985	.808	.203	.657	1.100	4.445	1.551	.317	6.295

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.000	.000	.000	.000	.000	.000	.000	4.000	1.637	20.781
2.000	.100	1.000	.199	10.331	2.959	.286	1.075	1.100	1.623	2.144	.852	10.823
2.000	.200	1.000	.299	9.449	1.991	.211	1.044	1.100	2.932	1.763	.627	7.961
2.000	.300	1.000	.400	8.686	1.521	.175	1.031	1.100	3.958	1.605	.521	6.617
2.000	.400	1.000	.503	8.036	1.248	.155	.946	1.100	4.739	1.523	.462	5.869
2.000	.500	1.000	.611	7.508	1.076	.143	.879	1.100	5.324	1.474	.426	5.413
2.000	.600	1.000	.726	7.147	.964	.135	.797	1.100	5.795	1.442	.401	5.095
2.000	.700	1.000	.860	7.146	.898	.126	.694	1.100	6.377	1.407	.374	4.750

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.000	.000	.000	.000	.000	.000	.000	4.000	2.124	20.294
2.400	.100	1.000	.188	14.304	3.192	.223	1.077	1.100	1.872	2.044	1.034	9.882
2.400	.200	1.000	.288	13.230	2.117	.160	1.048	1.100	3.421	1.679	.742	7.086
2.400	.300	1.000	.389	12.298	1.608	.131	1.006	1.100	4.670	1.529	.606	5.789
2.400	.400	1.000	.491	11.504	1.316	.114	.953	1.100	5.654	1.451	.530	5.064
2.400	.500	1.000	.598	10.858	1.132	.104	.887	1.100	6.417	1.405	.483	4.618
2.400	.600	1.000	.711	10.412	1.014	.097	.808	1.100	7.035	1.373	.451	4.310
2.400	.700	1.000	.340	10.378	.941	.091	.710	1.100	7.718	1.344	.420	4.016
2.400	.800	1.000	1.006	12.073	.924	.076	.576	1.100	9.577	1.284	.354	3.387

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.000	.000	.000	.000	.000	.000	.000	4.000	2.556	19.861
2.800	.100	1.000	.182	18.271	3.342	.183	1.079	1.100	2.050	1.984	1.190	9.247
2.800	.200	1.000	.282	17.007	2.195	.129	1.050	1.100	3.769	1.629	.840	6.526
2.800	.300	1.000	.382	15.910	1.660	.104	1.009	1.100	5.179	1.486	.679	5.275
2.800	.400	1.000	.484	14.976	1.356	.091	.957	1.100	6.309	1.410	.589	4.576
2.800	.500	1.000	.590	14.216	1.165	.082	.892	1.100	7.200	1.366	.533	4.145
2.800	.600	1.000	.702	13.690	1.042	.076	.815	1.100	7.929	1.336	.495	3.849
2.800	.700	1.000	.828	13.634	.966	.071	.719	1.100	8.691	1.310	.461	3.582
2.800	.800	1.000	.987	15.403	.939	.061	.591	1.100	10.473	1.261	.397	3.083

CONSTANT AREA HEATED JETPUMP

PT5P1	T0T1	A5A6	SACH5	CMA
1.100	5.000	1.690	.401	.442

P0P1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.200	.000	.552	.000	.000	.000	.000	.000	.000	.000	5.000	.357	26.377
1.200	.100	.560	.293	1.498	1.345	.898	1.046	1.100	.567	3.552	.271	19.967
1.200	.200	.585	.403	1.135	.896	.789	.999	1.100	.823	3.194	.245	18.100
1.200	.300	.624	.512	.881	.648	.736	.940	1.100	.898	3.108	.239	17.629
1.200	.400	.676	.626	.702	.495	.704	.868	1.100	.882	3.125	.240	17.726
1.200	.500	.736	.751	.587	.400	.681	.778	1.100	.846	3.166	.243	17.951
1.200	.600	.804	.927	.568	.365	.642	.640	1.100	.900	3.105	.239	17.617

P0P1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.000	.000	.000	.000	.000	.000	.000	5.000	.961	25.773
1.600	.100	.873	.221	6.399	2.536	.396	1.069	1.100	1.432	2.644	.543	14.569
1.600	.200	.888	.328	5.597	1.718	.307	1.033	1.100	2.464	2.155	.422	11.335
1.600	.300	.912	.436	4.911	1.309	.266	.983	1.100	3.157	1.962	.369	9.898
1.600	.400	.945	.550	4.341	1.066	.246	.918	1.100	3.591	1.871	.342	9.177
1.600	.500	.986	.672	3.910	.914	.234	.837	1.100	3.876	1.820	.326	8.760
1.600	.600	1.000	.811	3.681	.822	.223	.733	1.100	4.171	1.773	.312	8.368
1.600	.700	1.000	.997	4.191	.807	.193	.584	1.100	5.227	1.642	.269	7.222

P0P1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.000	.000	.000	.000	.000	.000	.000	5.000	1.464	25.270
2.000	.100	1.000	.203	10.252	2.889	.282	1.074	1.100	1.801	2.428	.750	12.948
2.000	.200	1.000	.307	9.293	1.939	.209	1.041	1.100	3.224	1.947	.555	9.588
2.000	.300	1.000	.412	8.453	1.479	.175	.995	1.100	4.306	1.754	.466	8.041
2.000	.400	1.000	.520	7.730	1.212	.157	.936	1.100	5.097	1.656	.417	7.202
2.000	.500	1.000	.635	7.142	1.042	.146	.862	1.100	5.662	1.600	.388	6.704
2.000	.600	1.000	.764	6.772	.934	.138	.769	1.100	6.139	1.560	.367	6.336
2.000	.700	1.000	.924	7.058	.882	.125	.643	1.100	7.042	1.497	.333	5.742

P0P1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.000	.000	.000	.000	.000	.000	.000	5.000	1.899	24.835
2.400	.100	1.000	.193	14.208	3.119	.219	1.076	1.100	2.079	2.299	.910	11.893
2.400	.200	1.000	.296	13.039	2.066	.158	1.045	1.100	3.769	1.839	.657	8.587
2.400	.300	1.000	.399	12.011	1.568	.131	1.001	1.100	5.100	1.656	.541	7.075
2.400	.400	1.000	.506	11.125	1.282	.115	.944	1.100	6.113	1.562	.478	6.246
2.400	.500	1.000	.618	10.399	1.103	.106	.874	1.100	6.870	1.508	.439	5.745
2.400	.600	1.000	.742	9.925	.987	.099	.785	1.100	7.497	1.471	.412	5.389
2.400	.700	1.000	.892	10.134	.923	.091	.669	1.100	8.425	1.424	.378	4.937

P0P1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.000	.000	.000	.000	.000	.000	.000	5.000	2.286	24.448
2.800	.100	1.000	.187	18.158	3.266	.180	1.078	1.100	2.278	2.220	1.047	11.193
2.800	.200	1.000	.289	16.781	2.145	.128	1.047	1.100	4.158	1.776	.744	7.954
2.800	.300	1.000	.392	15.571	1.622	.104	1.005	1.100	5.666	1.600	.606	6.483
2.800	.400	1.000	.498	14.525	1.324	.091	.949	1.100	6.841	1.510	.530	5.674
2.800	.500	1.000	.609	13.667	1.138	.083	.880	1.100	7.740	1.458	.484	5.181
2.800	.600	1.000	.730	13.097	1.018	.078	.794	1.100	8.481	1.422	.452	4.836
2.800	.700	1.000	.874	13.270	.948	.071	.683	1.100	9.457	1.383	.416	4.446

CONSTANT AREA HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.200	1.000	1.309	.552	.662

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.000	.000	.000	.000	.000	.000	.000	1.000	1.563	-1.563
1.600	.100	.873	.298	2.657	1.605	.604	1.139	1.200	.266	1.000	1.234	-1.234
1.600	.200	.888	.382	2.423	1.249	.516	1.101	1.200	.477	1.000	1.058	-1.058
1.600	.300	.912	.466	2.233	1.029	.461	1.054	1.200	.642	1.000	.952	-.952
1.600	.400	.945	.551	2.077	.884	.426	1.000	1.200	.768	1.000	.884	-.884
1.600	.500	.986	.636	1.948	.784	.403	.940	1.200	.864	1.000	.838	-.838
1.600	.600	1.000	.720	1.857	.717	.386	.875	1.200	.941	1.000	.805	-.805
1.600	.700	1.000	.805	1.801	.674	.374	.804	1.200	1.004	1.000	.780	-.780
1.600	.800	1.000	.896	1.787	.650	.364	.726	1.200	1.063	1.000	.757	-.757
1.600	.900	1.000	1.011	1.889	.654	.346	.624	1.200	1.166	1.000	.721	-.721

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.000	.000	.000	.000	.000	.000	.000	1.000	2.381	-2.381
2.000	.100	1.000	.264	4.617	2.033	.440	1.152	1.200	.363	1.000	1.748	-1.748
2.000	.200	1.000	.349	4.326	1.553	.359	1.117	1.200	.671	1.000	1.425	-1.425
2.000	.300	1.000	.435	4.084	1.269	.311	1.073	1.200	.931	1.000	1.233	-1.233
2.000	.400	1.000	.521	3.890	1.087	.279	1.021	1.200	1.147	1.000	1.109	-1.109
2.000	.500	1.000	.608	3.740	.965	.258	.961	1.200	1.326	1.000	1.024	-1.024
2.000	.600	1.000	.696	3.633	.881	.243	.894	1.200	1.473	1.000	.963	-.963
2.000	.700	1.000	.787	3.573	.826	.231	.819	1.200	1.594	1.000	.918	-.918
2.000	.800	1.000	.885	3.578	.794	.222	.736	1.200	1.703	1.000	.881	-.881
2.000	.900	1.000	1.005	3.774	.791	.209	.629	1.200	1.864	1.000	.831	-.831

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.000	.000	.000	.000	.000	.000	.000	1.000	3.090	-3.090
2.400	.100	1.000	.245	6.618	2.309	.349	1.159	1.200	.433	1.000	2.156	-2.156
2.400	.200	1.000	.331	6.257	1.730	.276	1.125	1.200	.809	1.000	1.708	-1.708
2.400	.300	1.000	.418	5.959	1.398	.235	1.082	1.200	1.131	1.000	1.450	-1.450
2.400	.400	1.000	.506	5.719	1.189	.208	1.030	1.200	1.405	1.000	1.285	-1.285
2.400	.500	1.000	.595	5.537	1.050	.190	.970	1.200	1.636	1.000	1.172	-1.172
2.400	.600	1.000	.686	5.410	.957	.177	.902	1.200	1.828	1.000	1.093	-1.093
2.400	.700	1.000	.780	5.345	.895	.167	.826	1.200	1.987	1.000	1.034	-1.034
2.400	.800	1.000	.880	5.371	.858	.160	.740	1.200	2.130	1.000	.987	-.987
2.400	.900	1.000	1.003	5.660	.850	.150	.631	1.200	2.330	1.000	.928	-.928

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.000	.000	.000	.000	.000	.000	.000	1.000	3.719	-3.719
2.800	.100	1.000	.234	8.612	2.489	.289	1.162	1.200	.483	1.000	2.507	-2.507
2.800	.200	1.000	.321	8.183	1.839	.225	1.130	1.200	.907	1.000	1.950	-1.950
2.800	.300	1.000	.409	7.829	1.475	.188	1.087	1.200	1.274	1.000	1.635	-1.635
2.800	.400	1.000	.498	7.547	1.249	.166	1.035	1.200	1.590	1.000	1.436	-1.436
2.800	.500	1.000	.588	7.332	1.100	.150	.975	1.200	1.857	1.000	1.302	-1.302
2.800	.600	1.000	.681	7.186	1.000	.139	.906	1.200	2.081	1.000	1.207	-1.207
2.800	.700	1.000	.776	7.118	.933	.131	.829	1.200	2.269	1.000	1.138	-1.138
2.800	.800	1.000	.877	7.164	.894	.125	.742	1.200	2.436	1.000	1.082	-1.082
2.800	.900	1.000	1.001	7.546	.883	.117	.633	1.200	2.662	1.000	1.015	-1.015

CONSTANT AREA HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.200	2.000	1.309	.552	.662

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.000	.000	.000	.000	.000	.000	.000	2.000	1.105	6.583
1.600	.100	.873	.302	2.639	1.580	.599	1.137	1.200	.374	1.728	.865	5.156
1.600	.200	.888	.390	2.387	1.221	.511	1.097	1.200	.665	1.601	.742	4.420
1.600	.300	.912	.479	2.181	1.001	.459	1.047	1.200	.887	1.530	.670	3.989
1.600	.400	.945	.568	2.013	.856	.425	.989	1.200	1.053	1.487	.624	3.718
1.600	.500	.986	.659	1.878	.757	.403	.923	1.200	1.177	1.459	.594	3.539
1.600	.600	1.000	.751	1.785	.693	.388	.850	1.200	1.279	1.439	.572	3.405
1.600	.700	1.000	.850	1.746	.653	.374	.766	1.200	1.377	1.421	.552	3.286
1.600	.800	1.000	.975	1.825	.647	.354	.656	1.200	1.536	1.394	.522	3.109

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.000	.000	.000	.000	.000	.000	.000	2.000	1.684	6.004
2.000	.100	1.000	.268	4.594	2.002	.436	1.150	1.200	.510	1.662	1.223	4.361
2.000	.200	1.000	.356	4.281	1.522	.355	1.113	1.200	.939	1.516	.997	3.557
2.000	.300	1.000	.445	4.019	1.240	.309	1.067	1.200	1.295	1.436	.866	3.088
2.000	.400	1.000	.535	3.805	1.060	.279	1.011	1.200	1.587	1.387	.782	2.788
2.000	.500	1.000	.627	3.638	.939	.258	.946	1.200	1.824	1.354	.725	2.584
2.000	.600	1.000	.723	3.522	.858	.244	.872	1.200	2.019	1.331	.684	2.438
2.000	.700	1.000	.826	3.476	.806	.232	.786	1.200	2.193	1.313	.651	2.320
2.000	.800	1.000	.951	3.595	.785	.218	.677	1.200	2.420	1.292	.613	2.184

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.000	.000	.000	.000	.000	.000	.000	2.000	2.185	5.503
2.400	.100	1.000	.248	6.590	2.273	.345	1.157	1.200	.610	1.621	1.507	3.796
2.400	.200	1.000	.338	6.201	1.696	.273	1.122	1.200	1.134	1.469	1.195	3.010
2.400	.300	1.000	.428	5.876	1.368	.233	1.077	1.200	1.578	1.388	1.017	2.563
2.400	.400	1.000	.519	5.610	1.162	.207	1.022	1.200	1.950	1.339	.905	2.280
2.400	.500	1.000	.613	5.405	1.026	.190	.957	1.200	2.258	1.307	.830	2.089
2.400	.600	1.000	.710	5.265	.934	.177	.883	1.200	2.515	1.284	.776	1.953
2.400	.700	1.000	.815	5.214	.875	.168	.796	1.200	2.742	1.267	.734	1.848
2.400	.800	1.000	.939	5.371	.847	.158	.688	1.200	3.013	1.249	.689	1.735

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.000	.000	.000	.000	.000	.000	.000	2.000	2.629	5.058
2.800	.100	1.000	.237	8.579	2.450	.286	1.161	1.200	.681	1.595	1.752	3.370
2.800	.200	1.000	.327	8.117	1.804	.222	1.127	1.200	1.272	1.440	1.364	2.624
2.800	.300	1.000	.418	7.730	1.446	.187	1.082	1.200	1.779	1.360	1.147	2.207
2.800	.400	1.000	.510	7.415	1.223	.165	1.027	1.200	2.209	1.312	1.012	1.947
2.800	.500	1.000	.605	7.173	1.077	.150	.963	1.200	2.569	1.280	.921	1.772
2.800	.600	1.000	.703	7.009	.978	.140	.888	1.200	2.870	1.258	.856	1.648
2.800	.700	1.000	.808	6.956	.915	.132	.802	1.200	3.135	1.242	.807	1.552
2.800	.800	1.000	.932	7.151	.882	.123	.694	1.200	3.438	1.225	.757	1.456

CONSTANT AREA HEATED JETPUMP

PT5P1	T0T1	A5A6	SACH5	CMA
1.200	3.000	1.309	.552	.662

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.000	.000	.000	.000	.000	.000	.000	3.000	.902	11.652
1.600	.100	.873	.309	2.610	1.544	.592	1.134	1.200	.453	2.377	.698	9.012
1.600	.200	.888	.403	2.333	1.179	.505	1.090	1.200	.795	2.114	.599	7.731
1.600	.300	.912	.499	2.103	.958	.456	1.035	1.200	1.047	1.977	.543	7.012
1.600	.400	.945	.596	1.918	.814	.425	.969	1.200	1.229	1.897	.509	6.574
1.600	.500	.986	.697	1.775	.718	.405	.893	1.200	1.363	1.846	.487	6.286
1.600	.600	1.000	.806	1.690	.658	.389	.803	1.200	1.483	1.805	.468	6.049
1.600	.700	1.000	.944	1.728	.636	.368	.683	1.200	1.669	1.749	.443	5.717

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.000	.000	.000	.000	.000	.000	.000	3.000	1.375	11.179
2.000	.100	1.000	.274	4.560	1.956	.429	1.148	1.200	.620	2.234	.983	7.995
2.000	.200	1.000	.368	4.213	1.475	.350	1.108	1.200	1.132	1.938	.802	6.524
2.000	.300	1.000	.462	3.918	1.197	.305	1.057	1.200	1.546	1.786	.700	5.691
2.000	.400	1.000	.559	3.674	1.019	.277	.995	1.200	1.876	1.695	.636	5.170
2.000	.500	1.000	.660	3.483	.901	.259	.922	1.200	2.139	1.637	.593	4.821
2.000	.600	1.000	.770	3.362	.823	.245	.834	1.200	2.361	1.595	.561	4.562
2.000	.700	1.000	.903	3.389	.781	.230	.720	1.200	2.619	1.553	.528	4.294

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.000	.000	.000	.000	.000	.000	.000	3.000	1.784	10.770
2.400	.100	1.000	.254	6.547	2.220	.339	1.155	1.200	.742	2.148	1.210	7.306
2.400	.200	1.000	.348	6.115	1.646	.269	1.117	1.200	1.369	1.844	.960	5.798
2.400	.300	1.000	.443	5.748	1.324	.230	1.068	1.200	1.890	1.692	.822	4.962
2.400	.400	1.000	.541	5.443	1.122	.206	1.008	1.200	2.316	1.603	.736	4.443
2.400	.500	1.000	.642	5.203	.989	.190	.935	1.200	2.663	1.546	.678	4.096
2.400	.600	1.000	.752	5.051	.901	.178	.849	1.200	2.956	1.506	.637	3.843
2.400	.700	1.000	.382	5.074	.850	.167	.738	1.200	3.268	1.469	.597	3.607

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.000	.000	.000	.000	.000	.000	.000	3.000	2.147	10.407
2.800	.100	1.000	.243	8.527	2.392	.281	1.159	1.200	.829	2.094	1.405	6.813
2.800	.200	1.000	.337	8.014	1.753	.219	1.122	1.200	1.538	1.788	1.096	5.312
2.800	.300	1.000	.433	7.576	1.401	.185	1.074	1.200	2.135	1.638	.927	4.492
2.800	.400	1.000	.530	7.212	1.184	.164	1.014	1.200	2.631	1.551	.822	3.986
2.800	.500	1.000	.632	6.928	1.041	.150	.943	1.200	3.039	1.495	.753	3.650
2.800	.600	1.000	.742	6.746	.947	.140	.857	1.200	3.383	1.456	.703	3.408
2.800	.700	1.000	.870	6.767	.889	.131	.749	1.200	3.736	1.422	.658	3.192
2.800	.800	1.000	1.073	7.987	.894	.112	.569	1.200	4.703	1.351	.561	2.720

CONSTANT AREA HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.200	4.000	1.309	.552	.662

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.000	.000	.000	.000	.000	.000	.000	4.000	.781	15.527
1.600	.100	.873	.316	2.581	1.508	.584	1.132	1.200	.517	2.978	.597	11.864
1.600	.200	.888	.417	2.278	1.138	.500	1.083	1.200	.897	2.582	.513	10.190
1.600	.300	.912	.519	2.025	.917	.453	1.022	1.200	1.164	2.386	.467	9.288
1.600	.400	.945	.626	1.823	.774	.425	.947	1.200	1.349	2.277	.441	8.761
1.600	.500	.986	.741	1.678	.681	.406	.858	1.200	1.488	2.206	.423	8.404
1.600	.600	1.000	.877	1.626	.631	.388	.742	1.200	1.648	2.133	.404	8.031

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.000	.000	.000	.000	.000	.000	.000	4.000	1.191	15.118
2.000	.100	1.000	.281	4.525	1.913	.423	1.146	1.200	.711	2.754	.839	10.651
2.000	.200	1.000	.379	4.144	1.431	.345	1.102	1.200	1.286	2.313	.685	8.699
2.000	.300	1.000	.480	3.816	1.155	.303	1.047	1.200	1.739	2.095	.601	7.626
2.000	.400	1.000	.584	3.543	.980	.277	.978	1.200	2.089	1.971	.549	6.971
2.000	.500	1.000	.696	3.332	.864	.259	.893	1.200	2.363	1.892	.515	6.536
2.000	.600	1.000	.828	3.227	.792	.245	.785	1.200	2.617	1.829	.487	6.181
2.000	.700	1.000	1.026	3.589	.783	.218	.611	1.200	3.203	1.714	.433	5.496

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.000	.000	.000	.000	.000	.000	.000	4.000	1.545	14.764
2.400	.100	1.000	.261	6.503	2.170	.334	1.153	1.200	.851	2.621	1.031	9.853
2.400	.200	1.000	.359	6.028	1.598	.265	1.112	1.200	1.559	2.173	.819	7.830
2.400	.300	1.000	.459	5.618	1.282	.228	1.059	1.200	2.133	1.957	.705	6.735
2.400	.400	1.000	.563	5.273	1.084	.206	.992	1.200	2.592	1.835	.635	6.068
2.400	.500	1.000	.675	5.004	.954	.191	.910	1.200	2.957	1.758	.589	5.627
2.400	.600	1.000	.803	4.859	.870	.179	.806	1.200	3.283	1.700	.553	5.286
2.400	.700	1.000	.981	5.159	.838	.162	.650	1.200	3.837	1.620	.502	4.796

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.000	.000	.000	.000	.000	.000	.000	4.000	1.859	14.449
2.800	.100	1.000	.249	8.475	2.337	.276	1.157	1.200	.951	2.538	1.196	9.298
2.800	.200	1.000	.348	7.909	1.704	.215	1.118	1.200	1.753	2.090	.934	7.262
2.800	.300	1.000	.448	7.420	1.359	.183	1.066	1.200	2.415	1.878	.794	6.174
2.800	.400	1.000	.551	7.007	1.146	.164	1.000	1.200	2.952	1.759	.709	5.514
2.800	.500	1.000	.662	6.684	1.007	.151	.920	1.200	3.385	1.684	.653	5.078
2.800	.600	1.000	.788	6.503	.916	.141	.819	1.200	3.766	1.629	.611	4.750
2.800	.700	1.000	.957	6.785	.873	.129	.672	1.200	4.325	1.563	.559	4.340

CONSTANT AREA HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.200	5.000	1.309	.552	.662

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.000	.000	.000	.000	.000	.000	.000	5.000	.699	18.750
1.600	.100	.873	.322	2.554	1.476	.578	1.129	1.200	.572	3.545	.528	14.168
1.600	.200	.888	.429	2.225	1.101	.495	1.076	1.200	.980	3.021	.454	12.186
1.600	.300	.912	.540	1.952	.880	.451	1.008	1.200	1.255	2.774	.416	11.165
1.600	.400	.945	.657	1.736	.738	.425	.924	1.200	1.436	2.642	.395	10.588
1.600	.500	.986	.789	1.596	.649	.407	.817	1.200	1.582	2.549	.379	10.169
1.600	.600	1.000	.974	1.650	.623	.378	.657	1.200	1.870	2.394	.352	9.442

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.000	.000	.000	.000	.000	.000	.000	5.000	1.065	18.384
2.000	.100	1.000	.287	4.491	1.872	.417	1.143	1.200	.789	3.236	.740	12.775
2.000	.200	1.000	.391	4.077	1.390	.341	1.097	1.200	1.414	2.657	.605	10.446
2.000	.300	1.000	.497	3.719	1.117	.300	1.036	1.200	1.895	2.382	.533	9.202
2.000	.400	1.000	.610	3.419	.944	.276	.959	1.200	2.254	2.229	.490	8.461
2.000	.500	1.000	.736	3.195	.831	.260	.861	1.200	2.533	2.132	.462	7.968
2.000	.600	1.000	.900	3.157	.769	.243	.722	1.200	2.862	2.036	.432	7.461

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.000	.000	.000	.000	.000	.000	.000	5.000	1.382	18.067
2.400	.100	1.000	.266	6.461	2.124	.329	1.151	1.200	.946	3.056	.908	11.878
2.400	.200	1.000	.370	5.945	1.555	.262	1.107	1.200	1.718	2.471	.723	9.453
2.400	.300	1.000	.475	5.494	1.243	.226	1.049	1.200	2.332	2.200	.625	8.173
2.400	.400	1.000	.586	5.112	1.048	.205	.976	1.200	2.809	2.050	.567	7.408
2.400	.500	1.000	.710	4.820	.921	.191	.883	1.200	3.185	1.956	.528	6.903
2.400	.600	1.000	.364	4.724	.844	.179	.754	1.200	3.569	1.875	.494	6.457

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.000	.000	.000	.000	.000	.000	.000	5.000	1.663	17.786
2.800	.100	1.000	.255	8.425	2.287	.272	1.155	1.200	1.057	2.945	1.054	11.268
2.800	.200	1.000	.358	7.809	1.659	.212	1.113	1.200	1.935	2.363	.824	8.816
2.800	.300	1.000	.462	7.270	1.320	.182	1.057	1.200	2.646	2.097	.704	7.533
2.800	.400	1.000	.573	6.811	1.111	.163	.986	1.200	3.208	1.951	.633	6.767
2.800	.500	1.000	.695	6.456	.975	.151	.895	1.200	3.656	1.859	.586	6.265
2.800	.600	1.000	.843	6.315	.890	.141	.772	1.200	4.089	1.786	.547	5.848

CONSTANT AREA HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.300	1.000	1.162	.658	.856

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.000	.000	.000	.000	.000	.000	.000	1.000	1.310	-1.310
1.600	.100	.873	.398	1.329	.971	.731	1.184	1.300	.133	1.000	1.156	-1.156
1.600	.200	.888	.475	1.203	.802	.667	1.137	1.300	.237	1.000	1.059	-1.059
1.600	.300	.912	.551	1.102	.686	.623	1.084	1.300	.317	1.000	.995	-.995
1.600	.400	.945	.628	1.021	.604	.592	1.024	1.300	.378	1.000	.951	-.951
1.600	.500	.986	.705	.954	.545	.571	.960	1.300	.423	1.000	.921	-.921
1.600	.600	1.000	.781	.904	.504	.557	.893	1.300	.458	1.000	.898	-.898
1.600	.700	1.000	.860	.878	.479	.545	.820	1.300	.490	1.000	.879	-.879
1.600	.800	1.000	.951	.883	.470	.533	.734	1.300	.525	1.000	.859	-.859

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.000	.000	.000	.000	.000	.000	.000	1.000	1.996	-1.996
2.000	.100	1.000	.339	2.649	1.425	.538	1.215	1.300	.208	1.000	1.652	-1.652
2.000	.200	1.000	.418	2.482	1.165	.469	1.172	1.300	.385	1.000	1.441	-1.441
2.000	.300	1.000	.497	2.344	.993	.424	1.122	1.300	.534	1.000	1.301	-1.301
2.000	.400	1.000	.577	2.232	.875	.392	1.064	1.300	.658	1.000	1.204	-1.204
2.000	.500	1.000	.658	2.147	.792	.369	1.000	1.300	.761	1.000	1.134	-1.134
2.000	.600	1.000	.742	2.087	.735	.352	.928	1.300	.846	1.000	1.081	-1.081
2.000	.700	1.000	.830	2.058	.697	.339	.848	1.300	.918	1.000	1.041	-1.041
2.000	.800	1.000	.930	2.079	.679	.327	.754	1.300	.990	1.000	1.003	-1.003

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.000	.000	.000	.000	.000	.000	.000	1.000	2.590	-2.590
2.400	.100	1.000	.308	3.980	1.710	.430	1.229	1.300	.260	1.000	2.055	-2.055
2.400	.200	1.000	.389	3.767	1.372	.364	1.189	1.300	.487	1.000	1.742	-1.742
2.400	.300	1.000	.471	3.590	1.156	.322	1.139	1.300	.682	1.000	1.540	-1.540
2.400	.400	1.000	.554	3.449	1.011	.293	1.082	1.300	.848	1.000	1.402	-1.402
2.400	.500	1.000	.639	3.342	.911	.273	1.016	1.300	.987	1.000	1.303	-1.303
2.400	.600	1.000	.726	3.270	.842	.257	.942	1.300	1.105	1.000	1.231	-1.231
2.400	.700	1.000	.818	3.239	.796	.246	.860	1.300	1.204	1.000	1.175	-1.175
2.400	.800	1.000	.921	3.279	.772	.235	.762	1.300	1.300	1.000	1.126	-1.126
2.400	.900	1.000	1.093	3.747	.797	.213	.597	1.299	1.542	1.000	1.019	-1.019

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.000	.000	.000	.000	.000	.000	.000	1.000	3.117	-3.117
2.800	.100	1.000	.291	5.302	1.897	.358	1.237	1.300	.297	1.000	2.403	-2.403
2.800	.200	1.000	.373	5.046	1.503	.298	1.197	1.300	.559	1.000	2.000	-2.000
2.800	.300	1.000	.457	4.834	1.256	.260	1.148	1.300	.787	1.000	1.745	-1.745
2.800	.400	1.000	.542	4.664	1.092	.234	1.091	1.300	.982	1.000	1.573	-1.573
2.800	.500	1.000	.628	4.537	.980	.216	1.025	1.300	1.149	1.000	1.451	-1.451
2.800	.600	1.000	.717	4.453	.903	.203	.950	1.300	1.290	1.000	1.362	-1.362
2.800	.700	1.000	.811	4.421	.852	.193	.866	1.300	1.409	1.000	1.294	-1.294
2.800	.800	1.000	.917	4.479	.824	.184	.766	1.300	1.523	1.000	1.236	-1.236
2.800	.900	1.000	1.089	5.052	.843	.167	.601	1.300	1.783	1.000	1.120	-1.120

CONSTANT AREA HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.300	2.000	1.162	.658	.856

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.000	.000	.000	.000	.000	.000	.000	2.000	.926	5.519
1.600	.100	.873	.403	1.319	.959	.727	1.181	1.300	.187	1.843	.813	4.845
1.600	.200	.888	.483	1.185	.785	.663	1.131	1.300	.330	1.752	.744	4.434
1.600	.300	.912	.565	1.078	.667	.619	1.074	1.300	.438	1.695	.700	4.168
1.600	.400	.945	.647	.991	.584	.590	1.009	1.300	.518	1.659	.670	3.991
1.600	.500	.986	.731	.923	.526	.570	.938	1.300	.579	1.634	.649	3.869
1.600	.600	1.000	.816	.878	.488	.555	.861	1.300	.629	1.614	.633	3.771
1.600	.700	1.000	.913	.869	.469	.540	.770	1.300	.685	1.593	.616	3.669
1.600	.800	1.000	1.075	1.022	.509	.498	.614	1.299	.860	1.538	.568	3.384

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.000	.000	.000	.000	.000	.000	.000	2.000	1.412	5.034
2.000	.100	1.000	.343	2.637	1.408	.534	1.213	1.300	.293	1.773	1.159	4.134
2.000	.200	1.000	.426	2.457	1.143	.465	1.168	1.300	.539	1.650	1.010	3.601
2.000	.300	1.000	.509	2.307	.970	.420	1.114	1.300	.743	1.574	.913	3.255
2.000	.400	1.000	.594	2.186	.852	.390	1.051	1.300	.911	1.523	.846	3.018
2.000	.500	1.000	.682	2.092	.769	.368	.980	1.300	1.049	1.488	.799	2.848
2.000	.600	1.000	.775	2.032	.714	.351	.899	1.300	1.165	1.462	.763	2.719
2.000	.700	1.000	.881	2.023	.681	.337	.801	1.300	1.276	1.439	.731	2.607
2.000	.800	1.000	1.038	2.210	.690	.312	.650	1.300	1.487	1.402	.678	2.417

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.000	.000	.000	.000	.000	.000	.000	2.000	1.832	4.613
2.400	.100	1.000	.312	3.964	1.688	.426	1.227	1.300	.367	1.732	1.440	3.627
2.400	.200	1.000	.397	3.734	1.346	.361	1.184	1.300	.683	1.594	1.219	3.071
2.400	.300	1.000	.483	3.543	1.131	.319	1.132	1.300	.951	1.512	1.079	2.719
2.400	.400	1.000	.570	3.387	.987	.291	1.070	1.300	1.177	1.459	.985	2.481
2.400	.500	1.000	.661	3.269	.887	.271	.998	1.300	1.366	1.423	.918	2.312
2.400	.600	1.000	.757	3.193	.820	.257	.915	1.300	1.525	1.396	.868	2.187
2.400	.700	1.000	.365	3.183	.778	.244	.815	1.300	1.674	1.374	.826	2.082
2.400	.800	1.000	1.018	3.405	.773	.227	.670	1.300	1.910	1.344	.768	1.934

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.000	.000	.000	.000	.000	.000	.000	2.000	2.204	4.241
2.800	.100	1.000	.295	5.283	1.872	.354	1.235	1.300	.419	1.705	1.682	3.237
2.800	.200	1.000	.381	5.006	1.475	.295	1.193	1.300	.784	1.560	1.399	2.690
2.800	.300	1.000	.468	4.775	1.229	.257	1.141	1.300	1.099	1.476	1.222	2.351
2.800	.400	1.000	.557	4.588	1.067	.233	1.080	1.300	1.366	1.423	1.104	2.125
2.800	.500	1.000	.649	4.446	.957	.215	1.008	1.300	1.592	1.386	1.022	1.965
2.800	.600	1.000	.747	4.356	.881	.202	.924	1.300	1.784	1.359	.961	1.848
2.800	.700	1.000	.856	4.348	.834	.192	.824	1.300	1.960	1.338	.911	1.752
2.800	.800	1.000	1.006	4.605	.822	.178	.681	1.300	2.214	1.311	.847	1.630

CONSTANT AREA HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.300	3.000	1.162	.658	.856

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.000	.000	.000	.000	.000	.000	.000	3.000	.756	9.769
1.600	.100	.873	.409	1.303	.940	.722	1.177	1.300	.226	2.631	.659	8.508
1.600	.200	.888	.497	1.158	.760	.657	1.122	1.300	.395	2.434	.602	7.775
1.600	.300	.912	.586	1.040	.639	.615	1.058	1.300	.518	2.318	.567	7.322
1.600	.400	.945	.677	.948	.556	.587	.984	1.300	.607	2.244	.544	7.027
1.600	.500	.986	.773	.880	.499	.567	.931	1.300	.676	2.194	.528	6.818
1.600	.600	1.000	.879	.850	.468	.550	.802	1.300	.746	2.145	.512	6.614
1.600	.700	1.000	1.053	.971	.494	.509	.636	1.299	.938	2.032	.474	6.124

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.000	.000	.000	.000	.000	.000	.000	3.000	1.153	9.372
2.000	.100	1.000	.350	2.617	1.381	.528	1.210	1.300	.356	2.475	.936	7.610
2.000	.200	1.000	.438	2.419	1.110	.459	1.160	1.300	.650	2.212	.813	6.615
2.000	.300	1.000	.529	2.252	.935	.415	1.100	1.300	.889	2.059	.737	5.990
2.000	.400	1.000	.622	2.115	.817	.386	1.029	1.300	1.080	1.961	.685	5.572
2.000	.500	1.000	.722	2.013	.736	.366	.946	1.300	1.236	1.894	.649	5.274
2.000	.600	1.000	.836	1.962	.685	.349	.843	1.300	1.378	1.841	.619	5.032
2.000	.700	1.000	1.000	2.076	.675	.325	.687	1.300	1.605	1.768	.576	4.687

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.000	.000	.000	.000	.000	.000	.000	3.000	1.496	9.029
2.400	.100	1.000	.319	3.938	1.655	.420	1.225	1.300	.446	2.383	1.160	7.004
2.400	.200	1.000	.409	3.684	1.308	.355	1.177	1.300	.825	2.096	.980	5.919
2.400	.300	1.000	.501	3.469	1.093	.315	1.119	1.300	1.141	1.934	.870	5.253
2.400	.400	1.000	.596	3.292	.950	.289	1.050	1.300	1.401	1.833	.797	4.811
2.400	.500	1.000	.698	3.158	.853	.270	.967	1.300	1.616	1.764	.745	4.500
2.400	.600	1.000	.813	3.087	.789	.255	.864	1.300	1.807	1.713	.705	4.258
2.400	.700	1.000	.969	3.200	.763	.238	.716	1.300	2.061	1.653	.658	3.974

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.000	.000	.000	.000	.000	.000	.000	3.000	1.800	8.725
2.800	.100	1.000	.302	5.252	1.834	.349	1.232	1.300	.510	2.324	1.354	6.563
2.800	.200	1.000	.393	4.945	1.433	.290	1.187	1.300	.949	2.026	1.124	5.447
2.800	.300	1.000	.485	4.684	1.190	.254	1.130	1.300	1.320	1.862	.985	4.773
2.800	.400	1.000	.582	4.470	1.030	.230	1.061	1.300	1.631	1.760	.893	4.330
2.800	.500	1.000	.684	4.307	.921	.214	.979	1.300	1.889	1.692	.829	4.021
2.800	.600	1.000	.799	4.219	.850	.201	.877	1.300	2.116	1.642	.781	3.785
2.800	.700	1.000	.951	4.335	.815	.188	.734	1.300	2.393	1.589	.729	3.533

CONSTANT AREA HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.300	4.000	1.162	.658	.856

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.000	.000	.000	.000	.000	.000	.000	4.000	.655	13.017
1.600	.100	.873	.416	1.289	.923	.716	1.173	1.300	.258	3.385	.566	11.249
1.600	.200	.888	.511	1.130	.735	.651	1.112	1.300	.445	3.076	.517	10.273
1.600	.300	.912	.608	1.001	.612	.611	1.041	1.300	.576	2.904	.488	9.696
1.600	.400	.945	.709	.904	.528	.584	.957	1.300	.669	2.798	.469	9.327
1.600	.500	.986	.821	.844	.476	.564	.856	1.300	.749	2.716	.455	9.035
1.600	.600	1.000	.970	.862	.463	.538	.715	1.300	.874	2.601	.433	8.615

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.000	.000	.000	.000	.000	.000	.000	4.000	.998	12.674
2.000	.100	1.000	.356	2.597	1.355	.522	1.206	1.300	.408	3.131	.801	10.175
2.000	.200	1.000	.451	2.380	1.078	.453	1.152	1.300	.738	2.726	.696	8.832
2.000	.300	1.000	.549	2.195	.902	.411	1.085	1.300	1.000	2.500	.631	8.015
2.000	.400	1.000	.652	2.046	.785	.384	1.005	1.300	1.207	2.360	.589	7.478
2.000	.500	1.000	.768	1.940	.706	.364	.905	1.300	1.375	2.263	.559	7.094
2.000	.600	1.000	.918	1.931	.664	.344	.766	1.300	1.566	2.169	.528	6.708

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.000	.000	.000	.000	.000	.000	.000	4.000	1.295	12.377
2.400	.100	1.000	.325	3.913	1.623	.415	1.221	1.300	.512	2.984	.992	9.477
2.400	.200	1.000	.421	3.634	1.272	.350	1.170	1.300	.940	2.547	.837	7.998
2.400	.300	1.000	.520	3.394	1.057	.311	1.106	1.300	1.289	2.311	.745	7.115
2.400	.400	1.000	.624	3.197	.915	.286	1.028	1.300	1.571	2.167	.684	6.541
2.400	.500	1.000	.740	3.053	.820	.269	.930	1.300	1.804	2.070	.642	6.136
2.400	.600	1.000	.886	3.019	.763	.253	.796	1.300	2.040	1.987	.605	5.777

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.000	.000	.000	.000	.000	.000	.000	4.000	1.559	12.113
2.800	.100	1.000	.308	5.221	1.798	.344	1.229	1.300	.586	2.892	1.156	8.984
2.800	.200	1.000	.404	4.884	1.394	.285	1.180	1.300	1.082	2.441	.958	7.447
2.800	.300	1.000	.503	4.593	1.152	.251	1.118	1.300	1.495	2.202	.842	6.543
2.800	.400	1.000	.608	4.352	.994	.228	1.041	1.300	1.833	2.059	.767	5.960
2.800	.500	1.000	.723	4.172	.888	.213	.945	1.300	2.113	1.964	.715	5.553
2.800	.600	1.000	.866	4.118	.822	.200	.815	1.300	2.385	1.886	.671	5.212

CONSTANT AREA HEATED JETPUMP

PT5P1	TOT1	A5A6	SACH5	CMA
1.300	5.000	1.162	.658	.856

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
1.600	.000	.868	.000	.000	.000	.000	.000	.000	.000	5.000	.586	15.719
1.600	.100	.873	.423	1.275	.906	.711	1.169	1.300	.285	4.112	.503	13.486
1.600	.200	.888	.525	1.103	.713	.646	1.103	1.300	.485	3.693	.459	12.314
1.600	.300	.912	.630	.967	.587	.607	1.023	1.300	.622	3.466	.434	11.641
1.600	.400	.945	.743	.867	.505	.582	.928	1.300	.717	3.329	.418	11.217
1.600	.500	.986	.876	.820	.459	.560	.805	1.300	.813	3.206	.404	10.827

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.000	.000	1.000	.000	.000	.000	.000	.000	.000	.000	5.000	.893	15.412
2.000	.100	1.000	.363	2.578	1.331	.516	1.203	1.300	.453	3.753	.709	12.245
2.000	.200	1.000	.464	2.343	1.049	.448	1.144	1.300	.813	3.206	.615	10.616
2.000	.300	1.000	.569	2.143	.873	.407	1.070	1.300	1.092	2.912	.559	9.654
2.000	.400	1.000	.683	1.981	.755	.381	.979	1.300	1.306	2.734	.523	9.037
2.000	.500	1.000	.819	1.879	.679	.362	.858	1.300	1.490	2.606	.497	8.573
2.000	.600	1.000	1.048	2.074	.676	.326	.640	1.299	1.880	2.389	.448	7.743

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.400	.000	1.000	.000	.000	.000	.000	.000	.000	.000	5.000	1.158	15.147
2.400	.100	1.000	.331	3.888	1.593	.410	1.219	1.300	.569	3.549	.876	11.458
2.400	.200	1.000	.433	3.585	1.239	.345	1.163	1.300	1.036	2.964	.739	9.660
2.400	.300	1.000	.539	3.323	1.024	.308	1.093	1.300	1.411	2.659	.659	8.615
2.400	.400	1.000	.653	3.107	.883	.284	1.004	1.300	1.707	2.477	.608	7.948
2.400	.500	1.000	.787	2.961	.791	.267	.888	1.300	1.956	2.353	.571	7.469
2.400	.600	1.000	.989	3.071	.754	.246	.697	1.300	2.320	2.205	.525	6.870

POP1	SACH2	SACH3	SACH4	A2A3	A2A6	A3A6	P4P1	PT4P1	WMWJ	TT5T1	CPM	CQM
2.800	.000	1.000	.000	.000	.000	.000	.000	.000	.000	5.000	1.394	14.911
2.800	.100	1.000	.314	5.191	1.764	.340	1.227	1.300	.651	3.422	1.021	10.915
2.800	.200	1.000	.416	4.824	1.358	.282	1.173	1.300	1.195	2.822	.845	9.041
2.800	.300	1.000	.521	4.505	1.117	.248	1.105	1.300	1.639	2.515	.745	7.965
2.800	.400	1.000	.635	4.240	.961	.227	1.019	1.300	1.997	2.335	.681	7.281
2.800	.500	1.000	.767	4.052	.858	.212	.906	1.300	2.295	2.214	.636	6.801
2.800	.600	1.000	.956	4.121	.807	.196	.729	1.300	2.669	2.090	.588	6.286

TIME, 0 MINUTES AND 0 SECONDS

thesB3655
Theoretical performance of the heated je
3 2768 002 13008 0
DUDLEY KNOX LIBRARY